


A black and white photograph of a person walking away on a path through a wooded area. The person is in the lower center, wearing a light-colored shirt and dark pants, carrying a bag. The path is dappled with sunlight and shadows from large trees on either side. Other figures are faintly visible in the background.

Undergraduate Catalog
of Curricula and Courses

Ohio University
1972-73 **Bulletin**



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Undergraduate Catalog
of Curricula and Courses

Ohio University
1972-73 **Bulletin**

Address Inquiries Concerning:

Admissions information, acceptance of credits, transfer students and campus tours to the Office of Admissions,

Jerry D. Reese, A.B., *Director*

Registration, class schedules and veterans' affairs to the Office of Registration, John R. O'Neal, M.Ed., *Dean*

Housing to the Office of University Housing,

Arthur R. Gibson, M.Ed., *Director*

Financial aids, scholarships, loans and student employment to the Office of Student Financial Aids,

Michael M. L'Heureux, M.Ed., *Director*

Continuing education, correspondence study, workshops, conferences or institutes to the Extension Division,

Curtis M. Johnson, M.A., *Director*

Intercollegiate Athletics, William D. Rohr, M.Ed., *Director*

Curricula and undergraduate degree requirements to the office of the dean of the college in question.

Graduate study to Graduate College, Wilson Hall.

The fees, programs and requirements contained in this bulletin are effective with the 1972 fall quarter.

They are necessarily subject to change without notice at the discretion of the University

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Academic Calendar, 1972-73

Fall Quarter, 1972

- Sept. 26, Tues. Class schedule adjustment day; registration day.
Sept. 27, Wed. Classes begin.
Oct. 6, Fri. Last day to register for fall quarter; last day to register for pass/fail option; last day to add courses; last day for partial refund of registration fees; last day for filing application and paying fee for conferral of degree on December 16.
Oct. 17, Tues. Last day to drop courses.
Oct. 18, Wed. University day.
Nov. 6-9 Winter quarter preregistration—Athens campus.
Nov. 22, Wed. Thanksgiving holiday begins at noon.
Nov. 23, Thurs. Thanksgiving Day (University officially closed).
Nov. 27, Mon. Classes resume with first scheduled class.
Dec. 9, Sat. Last day of classes. Degree candidates must have all required work completed (including work pending from previous quarters) and submitted to instructor(s).
Dec. 11, Mon. Examinations begin.
Dec. 16, Sat. Quarter closing date.
Dec. 18, Mon. Deadline for all grades, including pending grades from previous quarters for degree candidates.

Winter Quarter, 1973

- Jan. 3, Wed. Class schedule adjustment day; registration day.
Jan. 4, Thurs. Classes begin.
Jan. 15, Mon. Last day to register for quarter; last day to register for pass/fail option; last day to add courses; last day for partial refund of registration fees; last day for filing application and paying fee for conferral of degree on March 17.
Jan. 24, Wed. Last day to drop courses.
Feb. 5-8 Spring quarter preregistration—Athens campus.
Feb. 21, Wed. University Day.
Mar. 10, Sat. Last day of classes. Degree candidates must have all required work completed (including work pending from previous quarters) and submitted to instructor(s).
Mar. 12, Mon. Examinations begin.
Mar. 17, Sat. Quarter closing date.
Mar. 19, Mon. Deadline for all grades, including pending grades from previous quarters for degree candidates.

Spring Quarter, 1973

- Mar. 26, Mon. Class schedule adjustment day; registration day.
Mar. 27, Tues. Classes begin.
Apr. 5, Thurs. Last day to register for quarter; last day to register for pass/fail option; last day to add courses; last day for partial refund of registration fees; last day for filing application and paying fee for conferral of degree on June 9.

Apr. 16, Mon. Last day to drop courses.
 May 9, Wed. University Day.
 May 14-17 Fall quarter preregistration—Athens campus.
 May 28, Mon. Memorial Day holiday (University officially closed).
 June 2, Sat. Last day of classes. Degree candidates must have all required
 work completed (including work pending from
 previous quarters) and submitted to instructor(s).
 June 4, Mon. Examinations begin.
 June 9, Sat. Quarter closing date; annual commencement.
 June 11, Mon. Deadline for all grades, including pending grades from
 previous quarters for degree candidates.

Summer Quarter, 1973

First Term

June 18, Mon. Registration day.
 June 19, Tues. Classes begin.
 June 25, Mon. Last day to register for first five-week term; last day
 to register for pass/fail option; last day to add
 courses; last day for partial refund of registration
 fees; last day for undergraduates to file application
 and pay fee for conferral of degree on August 25;
 last day for graduate students to file application and
 pay fee for conferral of degree on August 25.
 June 28, Thurs. Last day to drop courses.
 July 4, Wed. Independence Day holiday (University officially closed).
 July 20, Fri. Last day of classes. Degree candidates must have all required
 work completed (including work pending from previous
 quarters) and submitted to instructor(s); examinations.
 July 21, Sat. Term closing date.
 July 23, Mon. Deadline for all grades, including pending grades from
 previous quarters for degree candidates.

Second Term

July 23, Mon. Registration day; classes begin.
 July 30, Mon. Last day to register for second five-week term; last day
 to register for pass/fail option; last day to add
 courses; last day for partial refund of registration
 fees; last day for undergraduates to file application
 and pay fee for conferral of degree on August 25
 (graduate students must have filed by June 25).
 Aug. 2, Thurs. Last day to drop courses.
 Aug. 24, Fri. Last day of classes. Degree candidates must have all required
 work completed (including work pending from previous
 quarters) and submitted to instructor(s); examinations.
 Aug. 25, Sat. Quarter closing date.
 Aug. 27, Mon. Deadline for all grades, including pending grades from
 previous quarters for degree candidates.

Academic Organization

The University College

Basic preparation for admission to each of the degree-granting colleges. Two-year terminal programs leading to the associate in arts, associate in science and associate in applied science degrees. Four-year program leading to the bachelor of general studies degree. Aerospace Studies and Military Science programs (Reserve Officers Training Corps).

The College of Arts and Sciences

Preprofessional curricula. Curricula leading to the bachelor of arts and bachelor of science degrees. Preparation for teaching at the secondary level.

Departments:

Botany	Mathematics and Astronomy
Chemistry	Modern Languages
Classical Languages	French Portuguese
English Language and Literature	German Russian
Geography	Italian Spanish
Geology	Philosophy
Government	Physics
History	Psychology
Linguistics	Social Work
	Sociology and Anthropology
	Zoology and Microbiology

The College of Business Administration

Curricula leading to the bachelor of business administration degree.

Departments:

Accounting and Quantitative Methods
Administrative Sciences
Economic Education
Economics
Organizational Science

The College of Communication

Curricula leading to the bachelor of science in hearing and speech sciences, bachelor of science in communication and bachelor of science in journalism degrees.

Schools:

Hearing and Speech Sciences	Journalism
Interpersonal Communication	Radio-Television

The College of Education

Teacher-training curricula leading to the bachelor of science in education degree and curricula leading to the bachelor of science in home economics degree.

Schools:

- Health, Physical Education and Recreation
 - Health Education
 - Physical Education
 - Recreation Education
- Home Economics

Departments:

Curriculum and Instruction	Guidance, Counseling and
Educational Administration	Student Personnel
Educational Media	Center for Educational
Educational Research and	Research and Services
Measurement	Cooperative Center for Social
	Science Education

The College of Engineering and Technology

Curricula leading to the bachelor of science in chemical engineering, bachelor of science in civil engineering, bachelor of science in electrical engineering, bachelor of science in industrial and systems engineering, bachelor of science in mechanical engineering and bachelor of science in industrial technology degrees.

Departments:

Chemical	Industrial and Systems
Civil	Industrial Technology
Electrical	Industrial Arts (Teaching)
Engineering Graphics	Industrial Technology
	Mechanical

The College of Fine Arts

Curricula leading to the bachelor of art in architecture, bachelor of fine arts and bachelor of music degrees.

Schools:

- Architecture
- Architecture

Art

Art Education
Art History
Ceramics
Graphic Design

Painting
Photography
Printmaking
Sculpture

Dance

Dance

Music

Applied Music
Music Education
Music History and Literature

Music Therapy
Theory and Composition

Theater

Acting
Children's Drama
Production Design

General Theater
Playwriting
Theater Education

Department of Comparative Arts
Program in Film

Additional Curricula and Programs

Office of Afro-American Studies

Established to encourage students to develop individual perspectives concerning the role of the black man in modern society and to train intellectuals as agents of community change.

Honors College

Attempts to provide the most flexible and challenging education possible both to the academically gifted and to the creative students.

International Studies

Offers a Certificate of African, Asian or Latin American Studies to undergraduates as a supplement to the student's major.

African Studies

Southeast Asian Studies

Latin American Studies

Ohio Program of Intensive English

Provides training in the English language designed to raise the proficiency of the non-native speaker to a level at which he is able to undertake academic study in an American college or university.

Regional Campus Administration

Academic Center at Ironton

Branch Campuses

Belmont County

Portsmouth

Chillicothe

Zanesville

Lancaster

Extension Division

Continuing Education

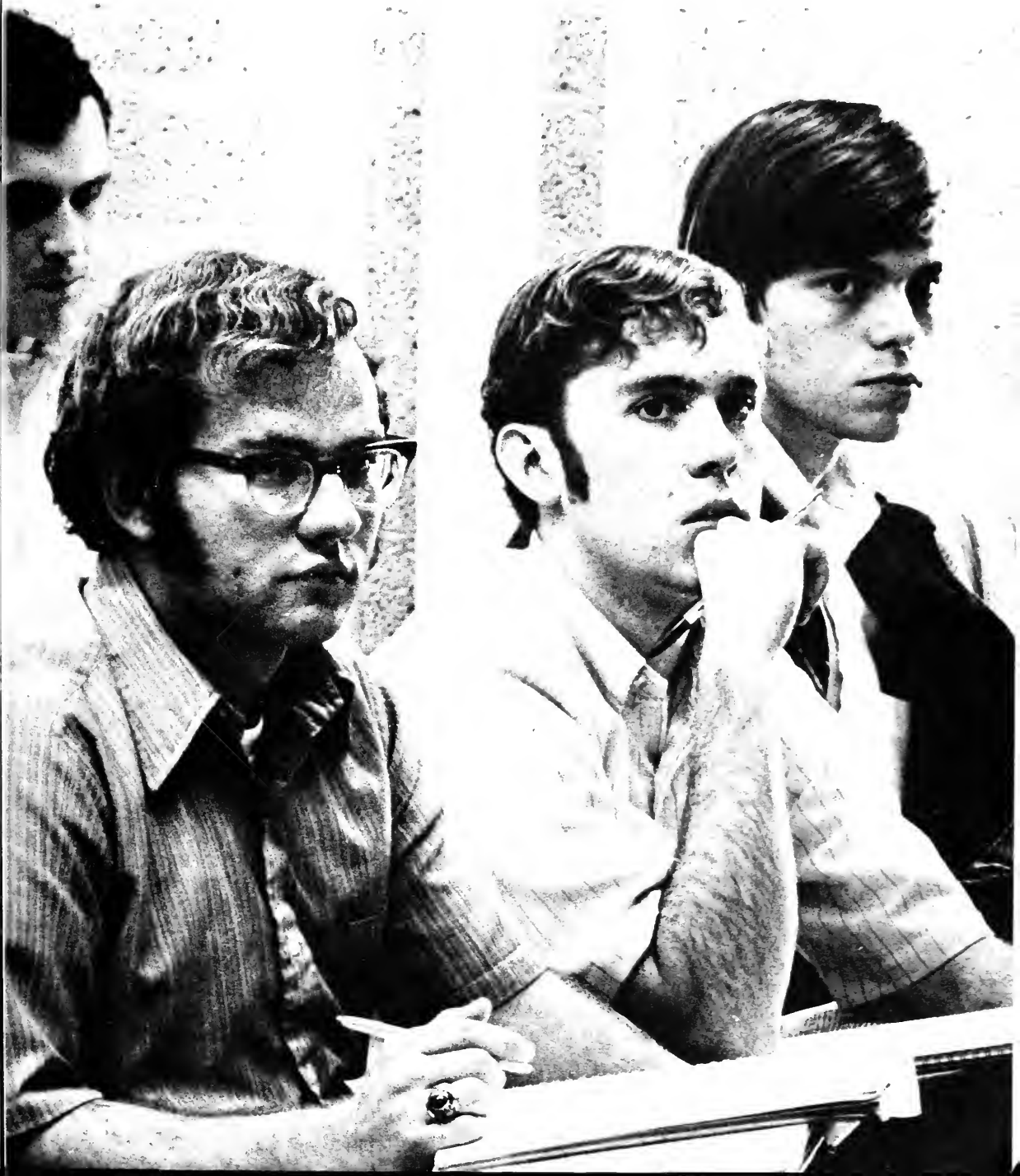
Independent Study through Correspondence

Workshops, Conferences and Institutes

The Graduate College

Programs leading to the master of arts, master of business administration, master of education, master of fine arts, master of science and doctor of philosophy degrees.

The Colleges and Curricula



The University College

Don M. Flourney, *Dean*

James S. Hartman, *Assistant Dean*

William L. Allen, *Assistant to the Dean*

The University College is in a stage of transition from being a college designed primarily to meet the needs of freshman students to a college which is concerned about the needs of all undergraduates. As in the past, all freshmen enroll in University College and are advised by the University College staff or by selected faculty in the academic area of the student's interest. The University College staff continue to manage freshman year orientation/advisement programs, such as Precollege, which assist students in planning academic programs which will facilitate their education, in reviewing their interests and academic programs and in helping them adjust to University life.

In addition, University College attempts to implement and make available a much broader set of academic options for undergraduates at all levels. Such options include the Student Development Program, the Freshman Interdisciplinary Course Program, the Residential/Experimental College, the Bachelor of General Studies Program and others. Following is a list of some of the programs sponsored by the University College.

UNIVERSITY COLLEGE PROGRAMS

Academic Advising and Counseling

No single activity of University College requires more time or is given a higher priority than advising and counseling. It is the responsibility of University College to inform students about the existing academic options and then assist them in coming to decisions about how they can best use the University to facilitate their growth and development.

All undecided or exploratory students are advised by the University College staff

while students with proposed majors are assigned to departmental faculty advisers. The staff serve as a centralized unit for the advisement of freshman, special students, undecided or probationary upperclassmen and students enrolled in the general studies degree program. Upperclassmen in all colleges may seek out counseling in University College when their questions touch on University-wide issues or are related to special University College programs.

Students in the University College are encouraged at entry to follow the requirements of degree programs. There are no freshmen requirements common to all students; if a student has a tentative major he should refer to those requirements as outlined in the catalog and the University College Bulletin. Courses are offered in the areas of humanities, mathematics, natural science and social sciences. Students are normally expected to enroll for 15 hours per quarter, although they may take up to 18 hours without additional cost.

Precollege Freshman Program

Each year during July and August University College conducts an academic orientation program designed to acquaint freshman and their parents with the programs of the University. Precollege results in a completed schedule and registration for each student. Students meet with undergraduates, student counselors, University College professional counselors and faculty advisers for assistance in planning their academic programs. One-day orienting and advising programs are also held following Precollege and prior to the winter and spring quarters for freshmen who arrive late and for transferring, reenrolling and relocating students.

Student Development Center

Under a grant from the Ohio Board of Regents, the University College sponsors a student development program which is designed to help the student successfully master university-level work. Supporting services include counseling, tutoring, reading and writing improvement, as well as group instruction in special subjects. No additional fees are charged for these services.

Freshman Interdisciplinary Courses

University College sponsors each year a series of special interdisciplinary courses for freshmen. The courses vary from year to year and are particularly appropriate for exploratory students. One faculty member and two resident fellows are assigned to each course. An attempt is made to have students live near each other in the residence halls. Each course carries ten hours of credit.

Residential/Experimental College

The Residential/Experimental College, established in the fall of 1971, provides an opportunity for undergraduate students to integrate their living and learning experiences in ways few other students are able to do. Members of the college enroll each quarter for a common ten-hour course, the content of which must be filled in by the individual student. Coursework and independent study arrangements are on a contractual basis between students and faculty who volunteer their time. A maximum of two years' (six quarters') work may be taken on this basis. This work serves as elective credit or, by negotiation with individual colleges and departments, may fulfill certain distribution and major requirements. University College serves as the academic home for the R/E College and application forms may be picked up there.

Bachelor of General Studies

The Bachelor of General Studies Program provides an opportunity for undergraduate students at Ohio University to design their own education. The student with high motivation, an exceptional background or an unusual combination of talents and

interests may find this degree useful in attaining his goals. The program is suited both for the student who comes to the University to find out who he is and what he wants to become and for the student who knows who he is and what he wants but wishes to take a nontraditional approach to his education.

Students seeking to enter graduate school or one of the established professions may find following the patterns suggested by the various disciplines more useful to them simply because the standard degrees have wider currency in the world and will more quickly suggest the nature of their academic accomplishments to others. The Bachelor of General Studies Program simply acknowledges that the existing degree programs, as varied as they are at Ohio University, cannot satisfy legitimate requirements of all students and provides the means by which individual students may, with the help of a University College counselor, self-structure their own degree programs.

To enter the Bachelor of General Studies Program, the student must complete an application available in the University College Office and schedule an interview with a University College counselor. A student must have completed 45 hours of credit before being advanced to the BGS program, although he may apply during the quarter in which he expects to complete 45 hours. Basic requirements for the bachelor of general studies degree are:

1. 180 quarter hours of credit, at least half of which are to be in junior-senior level courses.
2. A 2.0 accumulative grade point average, based on the 180 credit hours.
3. No fewer than 45 hours of credit to be taken after admission to the program.

University Professors

To acknowledge outstanding undergraduate teaching, students of Ohio University each year have the option of selecting from one to ten University Professors. University Professors are full-time faculty who have demonstrated teaching ability and an effective insight into educational processes. Each has freedom to teach courses of his or her choosing and is awarded a \$1,000 honorarium during the academic year of the appointment. At the present time, this program is limited to the main campus.

The University Professor Selection Committee consists of three student representatives from each degree-granting college (appointed by the dean), student representatives from the University Curriculum Council and past members of the UPSC who remain on campus.

The selection procedure has three parts:

1. Campus-wide nominations by ballot of outstanding full-time professors. This occurs during preregistration week of fall quarter.
2. Selection of the top nominees as a result of committee examination and class visitation during winter quarter.
3. Official appointment by the Vice President and Dean of Faculties after consultation with the respective department chairmen and deans.

Criteria to be used in selecting the University Professors will depend heavily on the number of nominations in relation to class size and the visitation of classes.

Basis for class visits and instructor interviews: (1) teaching ability, (2) interest shown towards the students, (3) willingness to help students, (4) student interest shown in and out of class, (5) what the faculty member had to say, (6) the way he felt he should teach, (7) how his department would react to his receiving the University Professorship, (8) how he presents the material: (a) how he presents problems to the student, (b) how he helps the students solve the problem, (c) how he helps develop ideas within the class, (d) confidence and interest shown toward students with new ideas.

National Student Exchange

Ohio University has recently joined the NSE, a Ford Foundation-supported program to exchange undergraduate students among public colleges and universities. University College has assumed administrative responsibility for the program and is helping Ohio University students make arrangements for pursuing one or more quarters' work on participating campuses. University College will also host visiting undergraduates and help them with scheduling and general adjustment problems. An attractive feature of the NSE program is the agreement among participating colleges that out-of-state tuition will be waived.

Advance Acceptance

Beginning with the class of students entering in the fall of 1972, our degree colleges may now make an early commitment to those students they wish to attract as majors. This commitment is called Advance Acceptance. All freshmen, including those who have been given advance acceptance by a particular department, continue to be enrolled in University College for their first three quarters of full-time work. The advance student, however, may be given special advising and priority registration and advanced placement privileges not available to other students. University College will facilitate the process in an attempt to give the clearly major-oriented student early contact with the department and will provide duplicate folders to the department.

Terminal Programs Leading to The Associate Degree

The University College offers several programs of study for students who do not intend to complete a four-year degree program and who plan to spend only two years at the University. The completion of one of these leads to the associate degree.

The associate programs include English, speech and other general education and career courses. The student must complete a minimum of 90 hours with a 2.0 average at graduation. Application for the degree is made at the Office of Student Records at the time announced for all degree candidates and must be accompanied by a fee of \$7.50.

The curricula for some terminal programs furnish the student with a background to certain professional schools or for employment. Specific curricula leading to labeled degrees include law enforcement technology at Chillicothe, library technical assistant at Lancaster, mental health technology at Athens, nursing at Portsmouth and Zanesville and radio-television (either technology or performance-production) at Zanesville. Specific curricula leading to unlabeled degrees include aviation and some fields within home economics. General curricula leading to unlabeled degrees can be arranged in a wide variety of disciplines and a special terminal program may be planned to meet the needs of the student.

University College

When the student decides to pursue one of these programs, he confers with his counselor and prepares an outline of necessary courses. This outline is filed with the University College Office. Credit earned while enrolled in a terminal program may be counted toward a four-year degree course, subject to the approval of the dean of the degree college in which the student enrolls. This shift from a terminal program to a degree program may involve spending additional time in completing the degree requirements for two main reasons: (1) some of these requirements are normally completed in the first two years and may not have been a part of the associate program, and (2) some of the technical courses included in a specific terminal program may not be transferable to a four-year degree program.

Associate in Arts Degree in Mental Health Technology

The University College in cooperation with the Department of Social Work and the Athens Mental Health Center offers the associate in arts degree in mental health technology. Students requesting admission to the program must be accepted by the Department of Social Work and an evaluation committee composed of professional mental health workers. A minimum of 90 hours is required (with a 2.0 average at graduation), to be completed in no fewer than six (6) regular quarters.

Mental Health Technology Curriculum

- | | Hours |
|--|-------|
| 1. General Education Courses | |
| Electives to be selected from courses in the social sciences, e.g. Govt 101, Soc 310, 320, SW 390, BSI 360 | 25 |
| 2. Career Courses (Required) | |
| Supportive social science courses recommended in the following sequence. | |
| Mental health technical courses required in the following sequence. | |

FIRST YEAR

	Hours
<i>Quarter I</i>	
Bot 101 or Zool 101 Principles	5
Psy 101 General Psychology	5
MHT* 101 Introduction to Mental Health	3
<i>Quarter II</i>	
Soc 101 Introduction to Sociology	5
Psy 103 Applications of Psychology	4
Psy 331 Psychology of Adjustment	4

Quarter III

MHT 122 Introduction to Case Management	3
Psy 373 Child and Adolescent Psychology	5

SECOND YEAR

Quarter I

	Hours
MHT 201 Activity Therapies	3
EdGS 410 Human Relations	3

Quarter II

MHT 221 Practicum in Mental Health I	5
SW 391 Social Welfare I	4
EdGS 440 Foundations in Group Dynamics	4

Quarter III

MHT 222 Practicum in Mental Health II	5
MHT 231 Seminar in Mental Health	3
SW 392 Social Welfare II	4

*Mental health courses taught by the professional staff at the Athens Mental Health Center.

Associate in Applied Science Degree in Nursing

Both the Zanesville and Portsmouth campuses of Ohio University offer two-year nursing programs. Students who complete the program will receive an associate in applied science degree in nursing and will be eligible to write the State Board Examination for Registered Nurse.

FIRST YEAR

Quarter I

	Class	Lab	Cr
Chem 121	3	3	5
Zool 101	3	2	5
Nurs 101	3	4	5

Quarter II

Chem 123	3	3	4
Zool 300	4	4	6
InCo 101	3	3	3
Nurs 102	3	4	5

Quarter III

Zool 310	3	1	4
Zool 345	4		4
Psy 101	5		5
Nurs 103	3	6	5

SECOND YEAR

Quarter I

	Class	Lab	Cr
Psy 373	5		5
Nurs 201	3	6	6
Nurs 202	3	6	6

Quarter II				
Nurs 203	3	6	6	
Nurs 204	3	6	6	
Soc 101	5		5	
			—	
			17	
Quarter III				
Nurs 205	3	12	9	
Nurs 206	3		3	
Elective	5		5	
			—	
			17	

In addition, the Belmont County campus and the Ohio Valley Hospital School of Nursing, Steubenville, have a cooperative nursing program. The Belmont County campus provides academic courses at the hospital required for the certificate program.

Associate in Arts Degree in Radio-Television

Ohio University-Zanesville offers a two-year program leading to an associate in arts degree in either radio-television technology or radio-television performance-production. The associate degree in radio-television prepares the student for employment as a technician, or for positions in the production-performance areas of broadcasting. The two-year program in radio-television technology prepares the student to take the examination for a First Class FCC engineering license. The entire program is coordinated with learning experiences at radio-television stations WHIZ-AM-FM-TV in Zanesville.

Program One (Technology)

Freshman				
R-TV 106 ..4	R-TV 121 ..4	R-TV 311 ..4		
Hist 101 ...4	R-TV 208 ..4	Hist 103 ...4		
Math 263A* .5	Hist 102 ...4	Math 263C .5		
or	Math 263B .5	or		
Math 113 ...5	or	Math 140B .5		
InCo 103 ...4	Math 140A .5	Elective4		
	17	17		17
Sophomore				
Eng 1875	R-TV 330 ..4	Govt 102 ...4		
R-TV 316 ..4	Govt 101 ...4	Econ 102 ...4		
Jour 351 ...3	Econ 101 ...4	R-TV 490 ..8		
BIC 220 ...3	Psy 1015	R-TV 498 ..2		
	15	17		18

Program Two (Performance-Production)

Freshman				
R-TV 106 ..4	R-TV 121 ..4	R-TV 455 ..4		
Hist 101 ...4	R-TV 208 ..4	R-TV 311 ..4		
Econ 101 ...4	Hist 102 ...4	Hist 103 ...4		
InCo 103 ...4	Econ 102 ...4	Psy 1015		
	16	Elective1		17
		17		
Sophomore				
R-TV 316 ..4	R-TV 330 ..4	R-TV 452 ..3		
Jour 351 ...3	Govt 102 ...4	R-TV 457 ..4		
Govt 101 ...4	Jour 3532	R-TV 413 ..4		
BIC 220 ...3	R-TV 490 ..5	or		
Elective3	R-TV 498 ..1	R-TV 417 ..4		
	17	16	Eng 1875	16

Electives: CA 117-118-119 (3); ThAr 115A-115B-115C (2).

*Math 113 must be substituted if you do not have the prerequisite for Math 263A. Math requirements satisfied by taking Math 163A in winter quarter and 163B in spring quarter.

Associate in Applied Science Degree for Library Technical Assistants

Ohio University-Lancaster offers a two-year program for library technical assistants leading to an associate in applied science degree. This program prepares the student for employment as supportive staff in libraries between the professional librarian and the library clerk. Career opportunities may be available in elementary and secondary school libraries, public and academic libraries, business and industry or government agencies.

FIRST YEAR

Quarter I		Hours
LTA 101 Intro to Library Technology		4
Psy 101 General Psychology		5
InCo 101 Fundamentals of Speech		3
Elective Social or Natural Science		3-5
		15-17

Quarter II		Hours
LTA 102 Support Operation for Public Services I		4
Eng 178 Literary Themes		5
Elective Social or Natural Science		3
Elective		3-5
		15-17

University College

Quarter III

LTA 103 Support Operation for Public Services II	4
LTA 104 Support Operation for Technical Serv. I	3
Soc 101 Introduction to Sociology	5
Elective Social or Natural Science	3-5
	<hr/> 15-17

SECOND YEAR

Quarter I

LTA 201 Library Services for Specific Groups I	4
LTA 204 Support Operation for Technical Serv. II	5
LTA 206 Audio-Visual Methods and Materials	4
CA 117 Comparative Arts	3
	<hr/> 16

Quarter II

LTA 203 Library Technician Internship I	3
LTA 202 Library Services for Specific Groups II	4
LTA 207 Preparation of Audio-Visual Materials	3
BIC 220 Business and Industrial Communications I	3
Elective	3
	<hr/> 16

Quarter III

LTA 205 Library Technician Internship II	8
Eng 201/202 Interpretation of Fiction/Poetry	5
Mgt 300 Management	4
	<hr/> 17

Associate in Applied Science Degree in Law Enforcement

Ohio University-Chillicothe offers a two-year program leading to an associate in applied science degree in law enforcement technology. This program prepares the student for employment in law enforcement by providing academic preparation for the contemporary officer. Career opportunities may be available in areas such as state highway patrol, local and county law enforcement agencies, corrections, juvenile authorities and as probation officers.

FIRST YEAR

Quarter I

LET 101 Introduction to Law Enforcement Technology	3
Soc 101 Introduction to Sociology	5
Psy 101 General Psychology	5
HPEM 100G Conditioning and Weight Training	1
Continuing Education—English (noncredit)	
Continuing Education—Typing (noncredit)	

Quarter II

LET 102 Constitutional, Criminal and Civil Law	3
InCo 101 Fundamentals of Speech	3
Govt 102 American National Government	4
BIC 220 Business and Industrial Communications I	3
HPEC 227 First Aid	4
HPEC 100Q Karate	1

Quarter III

LET 103 Police Role in Crime and Delinquency	3
Govt 303 Urban Politics	5
Soc 306 Social Problems	4
HPEC 101B Intermediate Karate	1
BSI 350 The Black Community in the 20th Century	5

SECOND YEAR

Quarter I

LET 201 Courts Structure, Procedure, Rules and Tests of Evidence	4
Chem 121 Introduction to Chemistry	5
LET 202 Cybernetics	3
HPEM 100N Gymnastics	1
Phot 101 Basic Photography	3

Quarter II

LET 203 Law Enforcement Administration and Supervision	3
Soc 362 Criminology	4
LET 204 Vice and Narcotic Control	3
EdGS 410 Human Relations	3
HPEM 100O Handball	1
Elective	3-5

Quarter III

LET 205 Police Community Relations	3
LET 206 Criminal Investigation	3
LET 207 Traffic Enforcement, Education and Engineering	3
LET 208 Arrest, Search and Seizure	3
HPEM 100X Swimming	1
Elective	3-5

RESERVE OFFICERS TRAINING CORPS

The rationale for reserve officer training stems from a statement by the founding fathers of this nation that we must "provide for the common defense." For young men who have the desire and talent to dedicate their time to the service of their country there are many and varied rewards. Today, when science and technology are so much a part of the national defense, and the defense of this nation is so inextricably involved with world problems, our nation needs talented and well-trained officers in its military services. These services need the best administrators, engineers and scientists the nation's schools can produce: officers in command with wide ranges of knowledge and skill. The Reserve Officers Training Corps, in agreement with universities and colleges, is designed to produce these types of men for the nation.

There are two ROTC programs at Ohio University: Aerospace Studies and Military Science.

ROTC is divided into two phases: the basic course and the advanced course. The University offers a four-year course and a two-year course for both programs.

BASIC COURSE REQUIREMENTS. In general, any physically qualified male student who is a U.S. citizen and is more than 14 years of age is eligible for enrollment in the basic course.

ADVANCED COURSE REQUIREMENTS. To be eligible for the advanced course a student must meet academic, physical, aptitude and moral selection criteria; complete either the basic course on campus or the six-week summer camp/field training, following the sophomore year and enlist in the Reserve of the respective service. Active duty commissions are not guaranteed upon successful completion of the program and students may be discharged from the Reserve for reasons of academic failure, personal hardship, medical disqualification or inaptitude.

SCHOLARSHIPS. Scholarships are available on a competitive basis for all qualified students participating in the programs. These scholarships pay costs of tuition, fees, books and laboratory expenses. In addition, recipients receive a subsistence allowance at the rate of \$100 per month for the period the scholarship is in effect.

SUBSISTENCE ALLOWANCE. All students in the advanced course receive subsistence allowances of \$100 per month.

SUMMER CAMP/FIELD TRAINING ALLOWANCES. All travel expenses, board, living quarters and uniforms are furnished and students are paid while attending summer camp/field training.

UNIFORMS AND EQUIPMENT. Textbooks, training equipment and complete uniforms are loaned to all ROTC students without cost. A student entering the advanced course receives, without cost, a complete officer-type uniform. The newly commissioned second lieutenant receives a \$300 clothing allowance upon entry on active duty.

COMMISSIONS. A student who successfully completes the ROTC advanced course and the requirements for a baccalaureate degree will be qualified for the tender of a commission as a second lieutenant in the United States Army or the United States Air Force.

Students who have successfully completed the first year of the ROTC advanced course and have shown evidence of outstanding leadership, scholarship and achievement in extracurricular activities are eligible for appointment as "Distinguished Military Students" (Army) and "Distinguished Cadets" (Air Force). Distinguished Military Students/Cadets may be considered for commissions in the Regular Army or Regular Air Force.

SPECIAL SCHOOLING. Both departments encourage graduate study and may permit a delay in call to active duty for up to four years for students enrolled in graduate-level study. Selected officers, after entrance on active duty, are sent to civilian universities or service technical institutes for graduate work leading to a master's degree or to the doctor of philosophy degree in a variety of specialized fields.

Aerospace Studies Program

The aerospace studies program is designed to develop the attitudes and skills required of professional Air Force officers. Emphasis is on professional education. The basic goal is to provide to student cadets the background knowledge to become junior officers in the United States Air Force.

The curriculum during the first two years of the basic "General Military Course" focuses on the existence and scope of world

military power, ideological conflicts and present and future implications of both. Included within this framework are elements of national power, an overview of the Air Force, a study of democracy and the actions of nations in their search for world peace. Concurrently with these academic subjects, the student cadet will participate in leadership activities called "Corps Training." These will enable him to gain an insight into the dynamics of military leadership as well as become familiar with the customs and courtesies of the military way of life. There is no service commitment during the first two years and it is an excellent way for a student to look at the Air Force as either a career or means of fulfilling his military obligation. This entire basic unit consists of six quarters of study and is entitled General Military Course or GMC.

The advanced curriculum, appropriately named the "Professional Officer Course" or POC, is specifically designed to prepare the student cadet for active duty as a commissioned officer. The course curriculum in the junior year includes studies of the development of air-power, present concepts within the Air Force and present and future astronautics and space operations based on projected technological developments. The senior year emphasizes professional responsibilities of Air Force officers within our democratic society and how the Air Force supports national goals. Studies are made of the military justice system, leadership and principles of management. Through classroom methods of case studies, guest lecturers and dialogue, the senior student cadet experiences a realistic simulation of problems facing the junior officers. The members of the advanced Professional Officer Course develop their leadership skills by working with the freshman and sophomore cadets; they improve their communicative abilities by writing and speaking, and they perform organizational projects similar to those accomplished by active duty Air Force officers. This advanced unit consists of six quarters of on-campus study and a summer quarter of field training which is a prerequisite of the course.

Interested and qualified cadets have the additional option of becoming flying officers. Identification for either pilot or navigator training will be made during the freshman (GMC) year, or for two-year applicants prior to the beginning of the advanced (POC) course. Cadets qualified in the pilot

category will receive 36 hours of flight instruction in their senior year which may qualify them for a private pilot's license and entry into the USAF flying training programs after graduation and commissioning. This on-campus instruction will be provided at no cost to the student cadet as part of the Air Force ROTC program. Navigator qualified cadets receive no formal flight instruction until after graduation and commissioning when they will enter the USAF's Navigation Flying Training Program.

After his commissioning, each new officer will be assigned to a position within the Air Force structure which best combines his academic major, his desires and the needs of the Air Force. Past graduates have requested and been assigned to areas of air operations (both flyers and nonflyers); administration, biological, medical, physical and social sciences; engineering; law, and research and development in aerospace technologies.

Military Science Program

The military science program is designed to complement the participating student's civilian goal of acquiring a baccalaureate degree in a course of study of his choosing by enabling him to develop those attitudes and understandings that will facilitate transition into military service. The curriculum does not provide technical training in a job specialty nor does it emphasize vocational training; it complements and provides a base for normal progression in the commissioned officer educational program. The general objective of the Military Science Program is to procure and produce junior officers who, by their education, training, attitude and inherent qualities, are suitable for continued development as Army officers. Every effort is made to commission graduates in the branch of the Army (area of specialization) of their choosing, and for which they are best suited by virtue of their academic major.

During the second year of the advanced course, interested and qualified cadets may enroll in the Army ROTC Flight Instruction Program. All expenses of this program are borne by the United States Army. In addition to enhancing the possibility for a career in Army aviation, the cadet who successfully completes flight instruction also has the opportunity to earn his private pilot's license.

The College of Arts and Sciences

John G. Jewett, *Dean*

Student Affairs:

William R. Jones, *Senior Assistant Dean*

James E. McMullen, Jr., *Assistant Dean*

Harry A. Hultgren, *Assistant to the Dean*

Ohio University remained a liberal arts college for almost one hundred years after it was founded. With the expansion of curricula and organization of new colleges and divisions during the last 60 years, the College of Arts and Sciences has held to what has been the central purpose of the college for more than a century and a half: to provide opportunities for the student to secure a general, liberal education. Since its focus is on the more general concerns of man, it is broader than, but in many cases includes, an education for immediate application. A liberal education implies teaching which is intended to impart knowledge, to encourage critical-mindedness, to increase the level of objective and quantitative thinking, to demand clear expression and to reveal insights and ideas important to the thinking of free men and women. It also implies active effort on the part of the student to learn what is taught. Its greatest service is in its commitment to reason, in its search for basic knowledge, in its mission to preserve and to give continuity to the value of mankind's many cultures. A liberal education also affords an acquaintance with the language, skills and methods in some scholarly area at a level that is more than merely introductory. It prepares the student for advanced graduate or professional training and in some cases for a more immediate vocation. In step with the changing needs of our society, the college has maintained the central purpose of a liberal education while providing professional curricula and area studies based on research and geared to today's career opportunities.

These objectives are achieved through the courses which make up the curricula of

the college—courses which historically have been regarded as the means whereby man has come to understand himself and the world in which he lives. These courses have taken a place in our academic disciplines as the result of today's technological and scholarly advances. The student gets specialized knowledge in some particular field through degree requirements, and also gets a fundamental education in the humanities, social sciences and natural sciences. In line with these goals, the following pages illustrate that the AB and BS degrees require specific courses only in the major. Beyond this, the degree requirements are designed to permit the student to familiarize himself with the languages, humanities, social sciences and natural sciences as separate areas but with considerable freedom within the areas.

Departments

The College of Arts and Sciences includes the following 17 departments:

- Botany
- Chemistry
- Classical Languages
 - Archaeology and Antiquities
 - Greek
 - Latin
- English Language and Literature
- Geography
- Geology
- Government
- History
- Linguistics
 - English as a Foreign Language
- Mathematics and Astronomy
- Computer Science

Arts and Sciences

Modern Languages

French
German
Italian
Portuguese
Russian
Spanish

Philosophy

Physics

Psychology

Social Work

Sociology and Anthropology

Zoology and Microbiology

Medical Technology

Microbiology

Physical Therapy

Preprofessional Areas in Zoology

Since a student enrolled in any college at Ohio University may elect courses in any other college with considerable freedom, much of the course work required by the other colleges is offered by the faculty of the College of Arts and Sciences. A student pursuing a degree in this college may elect courses, and in some instances may complete a major, in departments of the other degree-granting colleges.

A student entering the College of Arts and Sciences is assigned an adviser who teaches in the area of the student's major. Faculty advisers will assist in the preparation of a schedule each quarter so that proper sequences of courses in the major and appropriate related courses are selected. **HOWEVER, THE STUDENT IS RESPONSIBLE FOR SEEING THAT ALL REQUIREMENTS FOR THE DEGREE ARE BEING MET.**

Degrees and Majors

The college offers two degrees — the bachelor of arts (AB) and the bachelor of science (BS).

A major for the AB degree may be completed in the following areas:

Anthropology

Botany

Chemistry

Classical Languages (Latin)

Economics

English Language and Literature

Geography

Geology

Government

History

Mathematics

Modern Language

Philosophy

Physics

Psychology

Social Work

Sociology

Zoology

Arts and Sciences students may complete the following non-Arts and Sciences majors earning an AB degree:

Art

Home Economics

Interpersonal Communication

Journalism

Music

Theater

A major for the BS degree may be completed in the following areas:

Botany

Chemistry

Geography

Geology

Mathematics

Physics

Zoology

Arts and Sciences students may complete a BS degree in the following non-Arts and Sciences major:

Home Economics

REQUIREMENTS FOR BACHELOR OF ARTS AND BACHELOR OF SCIENCE DEGREES

Regardless of the major he is completing, the Arts and Sciences degree student follows a basically consistent outline to determine the requirements for his particular program. The AB and BS degree programs differ only in the language requirement (see language requirement section below) and in the specific major requirements as designated by the individual departments (see major requirement section below). The AB and BS degree requirements are explained under the following categories:

1. The Major Requirement
2. The Freshman Level English Requirement
3. The Foreign Language Requirement
4. The Humanities Area Requirement
5. The Social Sciences Area Requirement

6. The Natural Sciences Area Requirement
7. The Level of Study Requirement (Hours Above 200)
8. Total Hours Required and Credit Allowed
9. The Single Application of Credit
10. Averages Required
11. General Degree Information
 - a. Advising
 - b. *Degree in Absentia*
 - c. Dual Major
 - d. Minor Requirement
 - e. Second Bachelor's Degree
 - f. Teacher Certification
 - g. Time and Resident Load Limitations
 - h. Transfer and Transient Study

1. The Major Requirement

The specific requirements for each major in the departments in the College of Arts and Sciences are indicated in the course descriptions section of this bulletin. Special curricular requirements for the preprofessional areas (preparation for medicine, preparation for law, etc.) are explained in the Special Curricula section which follows. Requirements for a major in the departments outside the college are determined by a special adviser in each department.

The college requires that each major consist of a minimum of 36 quarter hours to be completed in one area. This includes nine quarter hours which must be taken at the junior-senior level. Specific departmental requirements must also be met. It should be noted that specific departments generally require more extensive course work for the major than these minimal requirements.

Methods courses are not included in the major. The AB degree candidate can count a maximum of 60 hours in one subject toward his degree; the BS degree candidate may count a maximum of 68 hours.

NOTE: Most Arts and Sciences departments place restrictions on the student's taking courses in the major by pass-fail. Coursework taken contrary to these restrictions may not count as credit. The student is encouraged to refer to the lists posted in his departmental office and in the office of the dean before taking any work in his major by pass-fail.

2. The Freshman Level English Requirement

This requirement is established by the individual department and varies with the major.

The courses may be selected from Eng 177, 178, 179, 187, 188, 189, all of which are five-credit-hour courses. The student should select the 170 or 180 series as directed. Where the department makes no distinction, either series may be elected. These courses will apply to the humanities area requirement regardless of major.

Major	Hours of Freshman English Required
Anthropology	0
Art	10
Botany	10
Chemistry	0
Classical Languages (Latin)	5
Economics	0
English	5
Geography	5
Geology	5
Government	0
History (170 series)	10
Home Economics	5
Interpersonal Communication	5
Journalism	10
Mathematics	0
Modern Languages	5
Music	10
Philosophy	10
Physics	5
Psychology	5
(plus five hours of Eng 308)	
Social Work	0
Sociology	5
Theater	5
Zoology	0

3. The Foreign Language Requirement

Courses taught at Ohio University which may be used to fulfill the language requirement are the African and Asian languages

(Chinese, Hausa, Indonesian/Malay and Swahili), the classical languages (Greek and Latin), Germanic language (German), Romance languages (French, Italian, Portuguese and Spanish) and Slavic language (Russian).

In each case, the numbers 111, 112 and 113 represent the first (beginning) year of the language and 211, 212 and 213 represent the second (intermediate) year. In the case of Germanic, Romance and Slavic languages, the exceptionally well-prepared student may take language 241 in place of 213. The student majoring in one of these languages must take 241 rather than 213.

CANDIDATES FOR THE AB DEGREE

The AB degree foreign language requirement is a complete two-year sequence through 213 (or 241).

Two years of high school language can be equivalent to one year of college language. The student who has completed two or three years of one language in high school and who wishes to complete the requirement in that language may do so according to the instructions in the table at the end of this section. In the case of Latin, a student with at least two years of high school Latin may also fulfill the requirement by passing Gr 111-112-113 or Lat 211-212-213.

A student who has completed four years of one modern foreign language in high school may complete the foreign language requirement by passing course number 213, or any higher level course in that language.

CANDIDATES FOR THE BS DEGREE

The BS degree candidate may meet the foreign language requirement with proficiency in foreign language(s) equivalent to two years of college study. To determine his individual requirement, he should bear in mind that two years of high school study in a single language is considered equivalent to one year of that language at the college level. Therefore, the student who enters college with two years of preparation in each of two languages or four years in a single language may consider his requirement for the BS degree already filled. The student who has had

two high school years in only *one* language may complete his requirement by taking the college intermediate year (211, 212 and 213) in the same language or by taking the beginning year (111, 112 and 113) in a *second* language. Credit is not given toward meeting the foreign language requirement for the first and second quarters of a beginning or intermediate year unless the third quarter is also completed.

FOREIGN STUDENTS

Upon entering Ohio University, a foreign student whose native language is not English may satisfy the foreign language requirement by demonstrating competence in English. This must be approved by the director of the Ohio Program of Intensive English and generally requires the completion of one course in English as a foreign language. The student may also satisfy the foreign language requirements by taking a foreign language other than his own.

LANGUAGE PLACEMENT TABLE

Although the student will not lose credit if he finds it necessary to repeat high school language work, he is advised to begin his college work in foreign languages according to the following table:

Years of language in high school:	Begin college language for credit at:
0-1 year	Course 111.
2-3 years	Course 211. In the case of Germanic, Romance and Slavic languages, the exceptionally well- prepared student may, by permission, begin with 241.
4-5 years	Course 213 (or 241). Degree credit cannot be earned for both 213 (non-major course) and 241 (major course).

If the student chooses to repeat high school work, the credit earned applies, still, to the language requirement.

4. The Humanities Area Requirement

The humanities requirement may be met by a selection of 18 quarter hours from two or more areas, with at least nine hours in one area, from among the following:

- a. archaeology
- b. art history *except* 334, 337, 338, 339, History of Photography
- c. comparative arts
- d. English courses
- e. foreign language courses other than those necessary to complete the foreign language requirement
- f. Gr 127
- g. Foreign Literatures in Translation (modern, classical) and Mythology
- h. Hum 107, 108, 109 or 307, 308, 309 —Great Books
- i. philosophy
- j. Music history and literature
- k. Dance 351, 352, 353, Dance Cultures of the World, and Dance 471, 472, 473, History of Dance.
- l. History and criticism of oratory

5. The Social Sciences Area Requirement

The social science requirement may be met by a selection of 18 quarter hours from two or more areas, with at least nine hours in one area, from among the following:

- a. economics
- b. business law 355, 370, 442 and 475
- c. geography *except* 101, 301, 311, 312
- d. government
- e. history
- f. linguistics
- g. psychology *except* 321, 326, 412, 414
- h. sociology and anthropology
- i. social work

6. The Natural Sciences Area Requirement

The natural science requirement may be met by a selection of 18 quarter hours from two or more areas, with at least nine hours in one area, from among the following:

Biological Sciences:

- a. botany
- b. Psy 326, 412, 414
- c. zoology

Physical Sciences:

- a. astronomy
- b. chemistry
- c. Geog 101, 301, 311, 312
- d. geology
- e. mathematics *except* 11, 109A, 109B, 120, 320 and 420
- f. PSc 101, 102, 103, or H197, H198, H199
- g. physics
- h. Psy 321

Note: Methods courses do not apply to the area requirements.

Some courses not offered by Arts and Sciences departments and not specifically mentioned above (e.g., B. S. I. courses, Honors College courses, University Professor courses, University College courses, etc.) may at times qualify for application to one of the Arts and Sciences degree requirements. For the course(s) to be considered for this purpose, the unit (e.g., Honors College) responsible for the course should submit a written request for such consideration, including a complete description of the course, teaching responsibility and related information to the chairman of the College of Arts and Sciences Curriculum Committee in the office of the dean of the college.

7. The Level of Study Requirement (Hours Above 200)

Within the total hours applied to the degree, at least 90 quarter hours of Arts and Sciences (liberal arts) courses must be above the freshman level; that is, they must be numbered 200 or above. Arts and Sciences courses are defined as those courses listed under humanities, social sciences and natural sciences (#s 4, 5 and 6) above.

Non-Arts and Sciences courses which satisfy any of the area requirements (#s 4, 5 and 6 in the outline above) also count toward the 200-level requirement.

Education courses which are required for teacher certification may be applied toward the 200-level requirement only when

the student has met all the requirements for teacher certification. These courses count also for the psychology major who plans to enter the graduate program in school psychology, upon written recommendation of the chairman of the Psychology Department certifying individual need and eligibility.

Economics majors may apply to the 200-level requirement a maximum of 15 hours from: Fin 323, Money, Banking and Economic Activity; QM 354, 355, 356, Business Statistics; 441, Multivariate Analysis, and any advanced offering in statistics.

All non-Arts and Sciences courses required by the programs listed under the Special Curricula section which follows will apply to the 200-level requirement for those students who *complete* the given program.

All other non-Arts and Sciences courses are considered to be electives. These are not counted toward the 200-level requirement, but are counted toward graduation.

8. Total Hours Required And Credit Allowed

A minimum total of 180 quarter hours for credit is required for either degree. Only the final hours earned when courses are repeated count for graduation.

Noncredit courses (courses numbered below 100) and credits earned by repetition of coursework are not accepted toward the 180 hour requirement.

No more than 60 hours in any one subject may be counted toward the AB degree; and no more than 68 hours in one subject may be counted toward the BS degree. See the *Guidelines and General Information* section of this catalog for a description of the residence requirement, which can, for some students, increase the total number of hours required.

9. The Single Application of Credit

No course may satisfy more than one of the area requirements in foreign language, humanities, social sciences, natural sciences or the major requirement. For example, a philosophy major may not apply any courses in philosophy toward the humanities requirement. (Courses required for a major

but outside the major department will be counted toward the area requirements.) However, the student majoring in a foreign language may apply courses at the beginning and intermediate level of that language toward the language requirement since the language major is defined as including only those courses above the intermediate level. For teacher certification students, certain courses in the "comprehensive major" may fulfill requirements for the appropriate area; students will need to consult with their advisors on this point. Freshman level English applies to the humanities area requirement.

10. Averages Required

In order to receive a degree in the College of Arts and Sciences, a student must have a minimum point-hour ratio of 2.0 on all of the following:

1. All hours attempted at the college level
2. All hours attempted at the college level in the major
3. All hours attempted at Ohio University
4. All hours attempted at Ohio University in the major

Only the final hours and points in repeated courses are counted for graduation. However, for the upperclassman, all courses including failures are included on the student's transcript. For repeated courses see the *Guidelines and General Information* section of this catalog.

The graduation point-hour ratio is computed after deductions for duplicated courses have been made. Note also that courses taken at Ohio University and repeated at another school do not result in deduction of the first grade earned.

11. General Degree Information

a. Advising

The college prepares, on a quarterly basis, current degree information for each student in the form of graduation check sheets and lists of currently enrolled students grouped according to their declared major. At advising and preregistration time each quarter, the student receives a copy of his check sheet and copies are given to the advisers, whose names are posted on the major

lists in the departmental offices. The student consults the list to identify his adviser, and should meet with his adviser not only during preregistration, but regularly throughout the year when assistance concerning academic requirements and plans is needed.

It is hoped that the student will develop a close relationship with his adviser concerning his academic program. Any arrangements deviating from the major requirements as described in the course description section of this catalog must be communicated to the office of the dean in writing by the department chairman. Such action should have the initial approval of the adviser. The student should visit the office of the dean only when exceptional circumstances exist, upon referral by his adviser or to correct check sheet errors and change programs.

To change his major, the student must visit the office of the dean. A change of major is not accomplished by making the change on the registration form.

When the student changes his major, his adviser is changed automatically by the college. All other matters pertaining to the assignment of advisers are administered by the departmental offices.

b. Degree in *Absentia*

Students who wish to earn a degree *in absentia* must complete 135 quarter hours as well as the specific requirements for the chosen program at Ohio University. A point-hour ratio of 2.0 or better must be maintained on all work attempted, and on all work in the major. All college area requirements must be completed, except the 200-level requirement, of which at least 45 hours must be completed above 200. A full year's work in an accredited school of dentistry, forestry, law, medical technology, medicine, physical therapy or veterinary medicine must be completed, and the student must be advanced to the second year of training (when the program is for more than one year) at the professional school without condition. For the medical technology and physical therapy degree *in absentia*, the student must successfully complete the professional program and, for medical technology, the registry examination.

A statement must be secured from the dean of the college before entering the professional school granting the degree *in absentia* privilege.

c. Dual Major

Students wishing to earn a dual major in two related fields must consult with the chairman of each department involved and the dean of the college. Most departments stipulate that the student must complete the requirements for the full major in both areas even though he is pursuing a dual major. Courses taken in either or both of the fields, even though not required for the major, cannot be used to complete the general area requirements in foreign language, humanities, social sciences or natural sciences. The College of Arts and Sciences requires a minimum of 23 quarter hours (including nine hours at the 400-level or above) beyond the introductory course in each field. Specific requirements are left to the discretion of the departments concerned.

d. Minor Requirement

There is no formal minor requirement for the college.

e. Second Bachelor's Degree

The AB or BS degree is granted only once to a given student. The student may, however, complete additional majors within his degree program, or he may earn both the AB and BS degrees or degrees from separate degree-granting colleges. For the guidelines for earning a second bachelor's degree, see the *Guidelines and General Information* section of this catalog.

f. Teacher Certification

Students earning either a bachelor of arts or bachelor of science degree in the College of Arts and Sciences may meet the special requirements for certification to teach in the secondary schools in Ohio by completing the following:

1. The regular program for the AB or BS degree with a teacher education major.
2.

a. Psy 375	5
b. EdSe* 250	4
c. EdPI** 360 or 361	2
d. EdSe 351	5
e. EdSe 480	3
f. The methods course(s)	3-6
g. EdPI 463-464	12
h. EdPI 465	3

3. The teaching major — The teaching major program consists of the student's standard major plus courses required for certification. The student can obtain a description of this program from his adviser, the Office of the Dean of the College of Arts and Sciences, or from the College of Education.

*EdSe—Secondary Education
**EdPl—Professional Laboratory

All students must meet the following general education requirements for certification in Ohio, as set forth by the State Department of Education:

Physical Education — 3

Students must complete a total of 45 quarter hours of general education. These 45 quarter hours must be distributed so as to include at least two courses in each of the following fields:

1. Science and Mathematics (one course in each)
2. Comparative Arts and/or Philosophy
3. Social Science
Psy 101 is required
4. English, and/or foreign language
InCo 103 is required unless waived on the basis of a high school speech course

If the major subject is the same as one of the above fields, then 10 quarter hours of the major may be counted towards the corresponding general education field as well as the major.

Careful selection of courses in meeting the College of Arts and Sciences area requirements will enable the student to fulfill all of the above general education requirements without exceeding the hours required for any requirements in the College of Arts and Sciences.

A prerequisite to certification is the satisfactory fulfillment of the Program of Selective Admission and Retention in Teacher Education. This program includes the following:

- A. Admission to teacher education: Application is made in the Personnel Services in Education Office, McCracken Hall, during the quarter when advancement from University College is expected.
- B. Admission to junior standing in teacher education: Application is made in the Personnel Services in Education Office, McCracken Hall, during the third quarter, sophomore year.
- C. Admission to student teaching: Application is made in the Office of Student Teaching, McCracken Hall, before Christmas vacation of the year prior to the year when the student teaching is to be done.

The Selective Admission and Retention Program is subject to change. See College of Education, p. 48.

g. Time and Resident Load Limitations

The student's requirements are defined by the catalog in effect when he begins his study in a given program (when he first registers at Ohio University or changes to a new major program). Upon the expiration of five years past the date of entry, the requirements become defined by the current catalog. (See the *Guidelines and General Information* section of this catalog.)

The normal resident load requirement for a student enrolled in the college is as described in the *Guidelines and General Information* section of this catalog. Note also that courses audited or taken by correspondence are not included in the minimum required hours.

Students who have requirements which involve courses numbered below 300 should start meeting such requirements not later than the beginning of the sophomore year. This is strongly recommended in the case of foreign language. Registration by juniors or seniors in courses numbered below 300 is discouraged and in some cases prohibited.

h. Transfer and Transient Study

A transfer student is required to complete at least 12 quarter hours toward the major in courses in the major department at the 200 level or above at Ohio University, with a point-hour ratio of at least 2.0. These courses should be approved by the department chairman. A transfer student completing the dual or double major is required to complete at least nine quarter hours at the 200 level or above in each of the two departments at Ohio University, with a point-hour ratio of at least 2.0 in each department. These courses should be approved by the chairmen of the two departments. Transfer students must complete freshman level English as required by the major department.

The transfer student or student earning credit by transient study should keep in mind that, in order to receive his degree, he must have a 2.0 or better average on all work done at Ohio University and on all work done in the major at Ohio University (see #10 above).

The transfer student should note the residence requirement which stipulates that a minimum of 45 final hours (one full year) must be completed with residence credit.

The senior student wishing to earn credit by transient study should keep in mind that he must complete his final 15 hours in residence at Ohio University if he previously has earned 90 or more hours in residence. If he has earned fewer than 90 hours in this manner, his final residence requirement is 45 hours.

The student wishing to arrange to earn credit by transient study must secure approval from his dean prior to registering for such study. This permits review and clarification of requirements and procedures and prevents loss of credit.

The student is encouraged to read the *Guidelines and General Information* section of this catalog for general University academic information, including information about the grading system, probation, credit hour loads and residence requirements.

SPECIAL CURRICULA

Preparation for Dentistry

No specific area for the major is required by the dental college or by Ohio University in undergraduate preparation for dentistry. The student must present preparation in various basic sciences, and many students do complete a major in one science or a dual major in two sciences.

Currently, most dental schools are selecting students with the bachelor's degree or a limited number who have completed three years and have met the degree *in absentia* privilege.

All dental school applicants are required to take the Dental Aptitude Test, offered during the academic year previous to the time the student plans to enroll in dentistry.

The following sequence of courses is recommended for pre dentistry students majoring in zoology.

Freshman	
Chem 121 Introduction	5
Chem 142 Chemical Energetics	5
Chem 143 Quantitative Analysis	5
Math 163A Intro to Calculus**	4
or	
Math 263A Anal Geometry and Calculus ...	5

Zool 101 and 203 Prin of Biol and Zool 11
Arts and Sciences College degree requirements and/or electives. (English and comparative arts are recommended.)

**Of the choices, this is recommended.

Sophomore	
Chem 301-302 Organic (short)**	6
Chem 303-304 Organic Lab**	3
or	
Chem 305-306-307 Organic (long)	9
Chem 308-309 Organic Lab	4
Zool 303 Comp Vert Anatomy	6
Zool 325 General Genetics	5

**Of the choices, this is recommended, to be followed by Zool 463 in senior year.

Junior	
Micr 411 General Microbiology**	6
Phys 201-202-203 Introduction	12
Zool 460 Animal Physiology	5
Arts and Sciences College degree requirements and/or electives.	

**Suggested

Senior	
Zool 404 Comparative Vertebrate Anatomy, Mammalian*†	6
Zool 406 Vertebrate Embryology*†	6
Zool 463 Cell Chemistry	4
Arts and Sciences College degree requirements and/or electives.	

*Suggested.

†Students who elect these courses and plan to leave at the end of the third year should include these courses in the junior year.

Preparation in Engineering Physics

This four-year program offered in the Department of Physics leads to a bachelor of science degree in physics and allows an emphasis in engineering or other applied sciences. Such a program offers, along with a major in physics, a broad basic education in several areas fundamental to present technology and is aimed at preparing applied or engineering-oriented scientists.

The particular sequence of courses will vary with the student's interests. What follows is an example of such a curriculum.

Freshman	
EG 1013	EG 1023
Math 263A ..5	Math 263B ..5
Eng Comp** 5	Phys 251 ...5
Math 263C ..5	InCo 101 ...3
Phys 252 ...5	
Requirements and/or electives (foreign language, as required)*	

Arts and Sciences

Sophomore

Chem 121 ..5 Chem 122 ..4 Chem 123 ..4
 Phys 2535 Phys 3062 Math 340 ...5
 Requirements and/or electives* (foreign language,
 as required)*

Junior

Phys 311 ...4 Phys 312 ...4 Phys 316 ...3
 Phys 321 ...4 Phys 322 ...4 Math 441 ...3
 ChE 3314
 Requirements and/or electives* (foreign language,
 as required)*

Senior

EE 212 or EE 314 or Requirements
 3133 3403 and/or
 Phys 451 ...4 Phys 452 ...4 electives*
 Phys 411 ...4 ME 301515-17
 Requirements and/or electives* (foreign language,
 as required)*

*See requirements for the BS degree.

**The student may fulfill the freshman-level English requirement by selecting one course (5 hours) from 177, 178, 179, 187, 188 and 189 or the student placed in honors English should select one course (5 hours) from 197, 198 and 199.

Preparation for Environmental Biology

This is a preprofessional program designed to give the student a broad base for developing a career in biology with an emphasis on the environmental aspects of the science. Although students who elect this program may find it to be satisfactory for their own goals, some additional training in specialized fields should be anticipated. Such post-graduate work may be gotten at schools of conservation and wildlife management, schools of forestry, graduate colleges in ecology or at similar institutions. Students whose main interests lie toward careers in conservation, natural resources, forestry, environmental quality control and ecology should find this program of value. Because of the high degree of professionalism required in these fields, the need for training beyond this program cannot be overemphasized.

Freshman

Bot 101, 102 Principles10
 Zool 203 Principles 6
 Chem 121, 122, 123 Environ. Chem13
 Math 263A, 263B10
 Econ 101, 102 Principles 8

Sophomore

Chem 143 Quantitative 5
 Eng 177, 178 or 187, 18810

Bot 309 Taxon. 5
 Zool 310 Elem. Microbiol. 4
 Geol 101, 102, 10311
 Geog 101 Elements of 3
 CS 201 Intro. Comput. 5
 Elective: Humanity 3

Junior

Phys 201, 202 Intro. 8
 Bot 425 or 426 Ecology 5
 Zool 325 Genetics 5
 Geog 235 Geog. of Nat. Res. Mgt. 3
 Geog 260 Map Reading and Interp. 4
 Language12
 Elective: Humanities 5
 Botany 4

Senior

Bot 420 Freshwater algae 5
 Bot 424 Plant Physiol. 6
 Bot 475 Evolution 3
 Psy 321 Elem. Statistics 5
 Geol 480 Appl. Gr. Water Hydrol. 4
 Econ 443 Econ. of Environ. 4
 Anth 478 Cultural Ecology 4
 Zool 475, 476 Ecology 5
 Elective: Botany 5

Preparation for Forestry

The Department of Botany, Ohio University, has a cooperative arrangement with the School of Forestry of Duke University for the program described below; this type of program may possibly be extended to other schools of forestry.

The curriculum outlined will prepare a student for admission to the School of Forestry of Duke University at the completion of the junior year. This will permit the student to receive the bachelor of science degree *in absentia* from Ohio University at the conclusion of one academic year at Duke, and the master's degree from Duke University upon completion of an additional one and one half years of academic work in the program.

Freshman

Botany (General, Plant and Animal Biology) ..15
 Chem 121, 142, 143 Fundamentals15
 Math 263A, 263B10

Sophomore

Bot 307, 308 Morphology12
 Bot 309 Taxonomy of Flowering Plants 5
 Econ 101, 102 8
 Chem 301, 302, 303, 304 9
 Zool 325 Genetics 5
 Electives*

Junior

Bot 424 Physiology	5
Bot 426 Ecology	5
Bot 431 Cytology	5
Phys 201, 202, 203 Introduction	12
CS 201	5
Electives*	

*Electives to fulfill Arts and Sciences degree requirements for the degree *in absentia*.

Preparation for Government Foreign Service

Students desiring to prepare for the foreign service officer examinations, which are given yearly, are advised to acquire as broad an education as possible. Facility in written and spoken English, competency in a foreign language and a good background in economics, history, government, business or public administration are essential. More detailed information about foreign service officer examinations, including sample questions from previous examinations, may be obtained from the Government Department.

Preparation for Law

A student in the College of Arts and Sciences who plans to enter law school normally completes the specific requirements for the bachelor of arts degree. No special curriculum is prescribed. The prelaw student may complete a major in the area of his principal interest. He is advised to select courses from as many of the following as possible: English composition and literature and American literature; history, with a preference for English and American; government; economics; sociology; a laboratory science; mathematics; philosophy; ethics; logic; accounting; psychology, and a foreign language. Courses in speech and training in expression, as well as activities that develop the capacity for independent thought and action, are recommended.

The Ohio Supreme Court has ruled that a student entering law school must be able to show that he possesses an undergraduate degree from an approved college if he wishes to take the Ohio Bar Examination. Law schools in the state of Ohio require the degree of all entering students regardless of the state in which they plan to take the bar examination.

The degree *in absentia* privilege is available to students who do not plan to seek admission to an Ohio law school. Students who have completed 135 quarter hours at Ohio University with a point-hour ratio of 2.0 or above, on all hours attempted, and have satisfied the requirements for the AB or BS degree may obtain the degree after completing a full year's work of the quality prescribed for the bachelor's degree at Ohio University in an accredited school of law, including advancement, without condition, to the second year of law school. Prior to entering the school of law, the student must secure a statement in writing from the dean giving the *in absentia* privilege.

Preparation in Linguistics

The undergraduate student may prepare for graduate work in linguistics in any of several ways. He may apply for admission into the Bachelor of General Studies Program (see entry in the *Special Programs* section of this catalog). If accepted, he may work toward the BGS degree following a program planned to give him the strongest preparation for graduate study in linguistics that the resources of the University allow. Or, he may work within one of the departments permitting programs that are linguistically oriented. See, for example, the programs of the English, modern language and hearing and speech sciences departments. Depending upon the kind of linguistics the student wishes to study, he may want to consider an undergraduate major in mathematics, psychology or philosophy. Students interested in anthropological linguistics may want to consider the various course offerings in anthropology and those associated with the Center for International Studies programs: courses in African languages and particular aspects of African culture, or courses in Southeast Asian languages and cultures. (See the entry, *Center for International Studies*, in *Special Programs* section of this catalog.)

Inquiries concerning the problem of planning undergraduate programs with emphasis upon linguistics may be directed to the chairman of the Department of Linguistics, College of Arts and Sciences.

Preparation for Medical Technology

The medical technology program prepares students for work in hospital laboratories, public health bureaus and other laboratories concerned with medical diagnosis and investigation. It leads to a bachelor of science degree in zoology and certification by the American Society of Clinical Pathologists.

The Ohio University-Mount Carmel Hospital affiliation for training of medical technologists fulfills the requirements established by A.M.A. and A.S.C.P. and affords the student an opportunity to earn the bachelor's degree. After completing (1) a minimum of 135 quarter hours with at least a 2.0 point hour ratio in his major and in all hours attempted and (2) all area requirements for the baccalaureate the student enrolls through the Department of Zoology and Microbiology for 12 months of internship at an affiliated hospital. The student will receive the bachelor of science degree from Ohio University upon (1) the satisfactory completion of hospital internship and (2) passing the registry examination which is administered by the Board of Registry of the American Society of Clinical Pathologists.

Medical technology students who require financial assistance may make application for a W.K. Kellogg Foundation or other loan through the Student Financial Aids Office. Expenses to be met during the year are room and laboratory uniforms. Affiliated hospitals vary with respect to stipends paid and fees assessed. Specific details are available from the medical technology adviser.

Freshman

Chem 121 Introduction	5
Chem 142 Chemical Energetics	5
Chem 143 Quantitative Analysis	5
Math 113 Algebra	5
Math 163A-B Intro to Calculus**	8

or

Math 263A Analytic Geometry and Calculus .	5
Zool 101 Principles of Biol	5
Zool 203 Principles of Zool	6
Arts and Sciences College degree requirements and/or electives.	

**Of the choices, this is recommended.

Sophomore

Chem 301-302 Organic (short)	6
Chem 325 Instr. Methods of Analysis	5

Zool 300 Elements of Anatomy and Histology	6
Zool 325 General Genetics	5
Zool 345 Human Physiology	4
Arts and Sciences College degree requirements and/or electives.	

Junior

Micr 411 General Microbiology	6
Micr 415 Immunology	7
Zool 463 Cell Chemistry	4
Arts and Sciences College degree requirements and/or electives.	
Plus at least 15 hours from among the following courses:	
Micr 412 Microbiological Techniques	4
Micr 413 Pathogenic Bacteriology	6
Micr 420 Microbial Genetics	6
Zool 305 Histological Technique	3
Zool 326 Laboratory Genetics	4
Zool 346 Human Physiology Laboratory ...	2
Zool 428 Human Genetics	3
Zool 441 Parasitology	6
Zool 464 Cell Chemistry Laboratory	3
CS 150 Computer Science, Survey	3
Phys 201-203 Introduction to Physics	4-4
IT 336 Bioelectronics	3
Math 263A Analytical Geometry and Calculus	5
Chem 351 Physical Chemistry	4

Senior**

MedT 491 Urinalysis	3
MedT 492 Hematology	8
MedT 493 Bacteriology, Serology and Parasitology	15
MedT 494 Chemistry	17
MedT 495 Blood Banking	4
MedT 496 Basal Metabolism and Radioisotopes	1

*Not required but suggested

**The fourth year medical technology courses are taken at an affiliated hospital.

Preparation for Medicine

Most medical colleges require the bachelor's degree for admission, and all others require a minimum of three academic years.

No specific area for the major is required by the medical college or by Ohio University in undergraduate preparation for medicine. The student must present preparation in various basic sciences, and many students do complete a major in one science or a dual major in two sciences.

For most medical schools, the requirements for admission include general chemistry; qualitative analysis; organic chemistry, including laboratory; physics; zoology, comparative vertebrate anatomy; embryology, and English. Courses in economics, fine arts, government, history, literature, composition,

philosophy and sociology are advised. A year's course in mathematics is required by some and urged by most schools. A student who plans to complete only three years at Ohio University before entering medical college is urged to meet requirements of the College of Arts and Sciences so as to be eligible for the degree *in absentia* privilege.

All medical college applicants are required to take the Medical College Admissions Test (MCAT) in May or October of the calendar year previous to the time they expect to enroll in medical college.

If the student has a particular medical school in which he wishes to enroll he should plan his program to meet the specific requirements of that school.

Premedical students majoring in chemistry will be held responsible for completing the following recommended program.

CHEMISTRY MAJOR (AB DEGREE)

Freshman

Chem 121-142-143 (or 190H-191H-143)	15 (or 13)
Math 263A-B-C	15
Zool 101-203 Prin Biol and Zool	11

Sophomore

Chem 305-306-307	9
Chem 308-309	4
Phys 251-252-253	15

Junior

Chem 453-454-455	9
Zool 303*	6
Zool 325*	5
Chem 325 (or Chem 484* and 485*)	5 (or 10)

Senior

Chem 476	4
Chem 490 and 491*	6
Zool 406*	6

*Desirable but not required.

Premedical students majoring in zoology will usually complete the following recommended premedical program.

ZOOLOGY MAJOR

Freshman

Chem 121 Introduction	5
Chem 142 Chemical Energetics	5
Chem 143 Quantitative Analysis	5
Gr 127 Greek Words in English	3
Math 163A-B Intro to Calculus**	8
or	
Math 263A-B* Anal Geom and Calc	10

Zool 101-203 Prin Biol and Zool	11
Arts and Sciences College degree requirements and/or electives. (Courses in English and comparative arts are recommended.)	

*Suggested

**Of the choices, this is recommended.

Sophomore

Chem 301-302 Organic (short)**	6
Chem 303-304 Organic Lab**	3
or	
Chem 305-306-307 Organic (long)	9
Chem 308-309 Organic Lab	4
Chem 325 Instrumental Analysis	5
Zool 303 Comp Vert Anatomy	6
Zool 325 General Genetics	5
Arts and Sciences College degree requirements and/or electives.	

**Of the choices, this is recommended, to be followed by Zool 463 in senior year.

Junior

Phys 201-202-203 Introduction	12
Micr 411 General Microbiology*	6
Zool 460 Animal Physiology	5
Arts and Sciences College degree requirements and/or electives.	

Senior

Chem 351 Physical Chemistry	4
or	
Zool 463 Cell Chemistry*	4
IndT 336 Bioelectronics*	3
Zool 404 Comparative Vertebrate Anatomy Mammalian*†	6
Zool 406 Vertebrate Embryology*†	6
Arts and Sciences College degree requirements and/or electives.	

*Suggested

† Students who elect these courses and plan to leave at the end of the third year should include these courses in the junior year.

Preparation for Microbiology, Public Health and Sanitarians

This four-year program leads to the bachelor of science degree majoring in the Department of Zoology and Microbiology and prepares graduates for careers as public health sanitarians, for work in municipal, state and federal public health laboratories and in the food and drug industries or in research laboratories. The bachelor's degree in this field qualifies the student for further training in a school of public health or university department of bacteriology or microbiology leading to the master's or doctor's degree in these areas.

For students planning to do graduate work in bacteriology or public health, it may be well to omit some of the advanced bacteriology courses, substituting additional

training in mathematics, chemistry, biochemistry or physiology; such changes should be planned in consultation with the faculty adviser.

MICROBIOLOGY MAJOR

Freshman

Bot 102 Plant Biol	5
Chem 121 Introduction	5
Chem 142 Chemical Energetics	5
Chem 143 Quantitative Analysis	5
Math 163A-B Intro to Calculus**	8
or	
Math 263A-B Analytic Geometry and Calculus	10
Zool 101-203 Prin of Biol and Zool	11
Arts and Sciences College degree requirements and/or electives.	

**Of the choices, this is recommended.

Sophomore

Chem 301-302 Organic (short)	6
Chem 303-304 Organic Lab	3
or	
Chem 305-306-307 Organic (long)	9
Chem 308-309 Organic Lab	4
Zool 303 Comparative Vertebrate Anatomy .	6
Zool 325 Genetics	5
Arts and Sciences College degree requirements and/or electives.	

Junior

Chem 325 Instr. Methods of Analysis	5
Chem 351 Physical	4
Phys 201-202-203 Introduction	12
Micr 411 General Microbiology	6
Micr 412 Microbiological Technique	4
Zool 463 Cell Chemistry	4
Arts and Sciences College degree requirements and/or electives.	

Senior

Micr 413 Pathogenic Bacteriology**	6
Micr 415 Immunology**	7
Micr 417 Advanced General Microbiology**	6
Micr 419 Bacterial Physiology**	6
Zool 441 Parasitology*	6
Zool 448 Cell Physiology	4
or	
Zool 460 Animal Physiology	5
Zool 485 Research*	5
Arts and Sciences College degree requirements and/or electives.	

* Suggested

**Should be deferred until Graduate School by those going for advanced degrees.

The following prepares students for careers in public health and as sanitarians.

Freshman-Sophomore

Same as for microbiology major (See above)

Junior

Chem 325 Instr. Methods of Analysis	5
Micr 411 General Microbiology	6
Phys 201-202-203 Introduction	12
Zool 435 General Entomology	6
or	
Zool 437 Medical Entomology	4
Arts and Sciences College degree requirements and/or electives. Soc 302 and EdGs 410 suggested.	

Senior

Micr 413 Pathogenic Bacteriology	6
Micr 417 Advanced General Microbiology ..	6
Zool 441 Parasitology	6
Zool 448 Cell Physiology	4
or	
Zool 460 Animal Physiology	5
Arts and Sciences College degree requirements and/or electives.	

Preparation for Optometry

The requirements for admission to schools of optometry are not uniform. A minimum of 90 hours exclusive of military science and physical education is required. The following suggested curriculum will meet the admission requirements for a collegiate program and consequently of most independent schools of optometry. There is *no in absentia* arrangement for optometry.

Freshman

Chem 121 Introduction	5
Chem 142 Chemical Energetics	5
Chem 143 Quantitative Analysis	5
Math 263A Analytic Geometry and Calculus	5
Math 263B*	5
Zool 101-203 Prin of Biol and Zool	11
Arts and Sciences College degree requirements and/or electives.	

*Suggested

Sophomore

Chem 301-302 Organic (short)	6
Chem 303-304 Organic Lab	3
Phys 201-202-203 Introduction	12
Psy 101 General	5
Arts and Sciences College degree requirements and/or electives.	

Further information relative to requirements and the profession of optometry may be obtained by writing to the American Optometric Association, Department of Public Information, 4030 Chouteau Avenue, St. Louis, Missouri 63110.

Preparation for Pharmacy

Most schools of pharmacy require 90 quarter hours of academic credit, exclusive of physical education and military science, for admission. The following general program will meet the requirements of most schools. There is no *in absentia* arrangement for pharmacy.

Freshman

Chem 121 Introduction	5
Chem 142 Chemical Energetics	5
Chem 143 Quantitative Analysis	5
Math 263A-B Anal Geometry and Calculus ..	5-5
Zool 101-203 Prin of Biol and Zool	11
Arts and Sciences College degree requirements and/or electives.	

Sophomore

Chem 305-306-307 Organic (long)	9
Chem 308-309 Organic Lab	4
Econ 101 Principles	4
Phys 201-202-203 Introduction	12
QM 354 Intro to Probability Theory	4
QM 355 Intro to Statistical Inference	3
Zool 300 Elements of Anatomy	6
Arts and Sciences College degree requirements and/or electives.	

The student may complete this program plus the additional requirements for the AB or BS degree with a major in zoology or chemistry.

Since some pharmacy schools require additional courses not listed here, students wishing to go to a specific school should write to the school of their choice for additional requirements as soon as possible.

Preparation for Physical Therapy

The following programs extending over a period of three or four years at Ohio University are recommended to students who wish to enter physical therapy.

PLAN A: After completing (1) a minimum of 135 quarter hours with at least a 2.0 point hour ratio in his major and in all hours attempted and (2) all area requirements for the baccalaureate, the student may apply for admission to an accredited school of physical therapy. Upon satisfactory completion of 12 months of professional training in physical therapy the student will receive the bachelor of science degree *in absentia* from Ohio University with a major in zoology. At present Ohio University is affiliated

with The Mayo Clinic and Northwestern University in this degree *in absentia* program.

PLAN B: The student may elect to transfer to an accredited school of physical therapy and not complete his degree requirements at Ohio University. If this option is elected it is suggested that the transfer be made no later than the end of the sophomore year, and the student's academic program while at Ohio University should essentially follow that of Plan A. Care should be taken to fulfill all special admission requirements established by the school to which he is transferring.

PLANS C AND D: A student may elect to pursue a career in physical therapy after completing a four-year bachelor's degree program at Ohio University majoring in either zoology (Plan C) or psychology (Plan D). For such students it is recommended that they follow one of the baccalaureate programs given below and apply for entrance to a certificate program in an accredited school of physical therapy to commence after graduation from Ohio University.

PLANS A OR B: Three year degree *in absentia* and transfer program. The following courses are required:

Freshman

Chem 121-122 Introduction	9
Math 113 Algebra	5
or	
Math 163A Intro to Calculus	4
Psy 101 General	5
Zool 101-203 Prin Biol and Zool	11
Arts and Sciences College degree requirements and/or electives.	

Sophomore

HPER 202 Personal and Community Health	3
Psy 373 Child and Adolescent	5
Soc 302 Principles	5
Zool 301 Human Anatomy	6
Zool 345 Human Physiology	4
Zool 346 Human Physiology Lab	2
Zool 352 Kinesiology	4
Arts and Sciences College degree requirements and/or electives.	

Junior

HPER 329 Athletic Training	4
Phys 201-202 Introduction	8
Zool 445 Physiology of Exercise	4
Zool 446 Physiology of Exercise Lab	2
Arts and Sciences College degree requirements and/or electives.	

Arts and Sciences

Senior

To be completed at an accredited school of physical therapy. The following are suggested to be used to supplement the major or serve as electives:

GR 127 Greek Words in English	3
HSS 108 Introduction to Speech Disorders ..	3
or	
HSS 336 Speech and Hearing Disorders in Public Schools	3-4
HSS 424 Neuropathologies of Speech and Language	3-4
Psy 375 Educational	5
Psy 432 Abnormal	5
Psy 131 Psychology of Adjustment	4
Zool 303 Comparative Vertebrate Anatomy ..	6
Zool 325 General Genetics	5
Zool 460 Animal Physiology	5
Zool 479 Evolution	4

PLAN C: Four-year BS in zoology program. The following courses are required:

Freshman

Chem 121-122 Introduction	9
Math 113 Algebra	5
or	
Math 163A Intro to Calculus	4
Psy 101 General	5
Zool 101-203 Prin of Biol and Zool	11
Arts and Sciences College degree requirements and/or electives.	

Sophomore

HPER 202 Personal and Community Health	4
Soc 302 Principles	5
Chem 301-302 Organic	6
Zool 301 Human Anatomy	6
Zool 345 Human Physiology	4
Zool 346 Human Physiology Lab	2
Zool 352 Kinesiology	4
Arts and Sciences College degree requirements and/or electives.	

Junior

HPER 329 Athletic Training	4
Phys 201-202 Introduction	8
Psy 373 Child	5
Zool 303 Comparative Vertebrate Anatomy	6
Zool 325 General Genetics	5
Arts and Sciences College degree requirements and/or electives.	

Senior

The following are suggested courses to be used to supplement the major or serve as electives:

GR 127 Greek Words in English	3
HSS 108 Introduction to Speech Disorders ..	3
or	
HSS 336 Speech and Hearing Disorders in Public Schools	3-4

HSS 424 Neuropathologies of Speech and

Language	3-4
Psy 131 Psychology of Adjustment	4
Psy 375 Educational	5
Psy 432 Abnormal	5
Zool 404 Comparative Vetebrate Anatomy ..	6
Zool 460 Animal Physiology	5
Zool 479 Evolution	4

PLAN D: Four-year AB in psychology program. The following courses are required:

Freshman

Chem 121-122 Introduction	9
Math 113 Algebra	5
or	
Math 163A Intro to Calculus	4
Psy 101 General	5
Zool 101-203 Prin of Biol and Zool	11
Arts and Sciences College degree requirements and/or electives.	

Sophomore

Psy 321 Elem Stats for Behavioral Science ..	5
Psy 326 Experimental Psychology	5
Psy 373 Child	5
Soc 302 Principles	5
Zool 301 Human Anatomy	6
Zool 345 Human Physiology	4
Zool 346 Human Physiology Lab	2
Zool 352 Kinesiology	4
Arts and Sciences College degree requirements and/or electives.	

Junior

HPER 329 Athletic Training	4
Phys 201-202 Introduction	8
Psy 131 Psychology of Adjustment	4
Psy 341 Behavioral Measurement	5
Psy 403 Learning	5
or	
Psy 404 Human Learning	5
Arts and Sciences College degree requirements and/or electives.	

Senior

HPER 202 Personal and Community Health	4
Psy 410 Motivations	5
or	
Psy 436 Social	5
or	
Psy 451 Clinical and Counseling	5
Psy 412 Physiological Psychology	5
Psy 432 Abnormal	5
or	
Psy 433 Psychology of Personality I	5
Psy 475 Psychology of Exceptional Child	5
Zool 445 Physiology of Exercise	4
Zool 446 Physiology of Exercise Lab	2
Arts and Sciences College degree requirements and/or electives.	

The following are suggested electives:

GR 127 Greek Words in English	3
HSS 108 Introduction to Speech Disorder ...	3
or	
HSS 336 Speech and Hearing Disorders in Public Schools	3-4
HSS 424 Neuropathologies of Speech and Language	3-4
Zool 404 Comparative Vertebrate Anatomy ..	6
Zool 460 Animal Physiology	5
Zool 479 Evolution	4

Preparation for Physics Technology (Physics Major)

The curriculum below will qualify students for many physics career opportunities in industry or government laboratories and provide excellent preparation for graduate study.**** The student should also consult the physics curricula and courses in the *Courses of Instruction* section of the catalog.

Freshman

Fresh Eng*** 5	Phys 251 ...5	Phys 252 ...5
Math 263A .5	Math 263B .5	Math 263C ..5
	InCo 101 ..3	
Requirements and/or electives** (foreign language, as required)**		

Sophomore

Chem 121 ..5	Chem 122 ..4	Chem 123 ..4
Phys 253 ...5	Phys 306 ...2	Requirements
	Math 340 ..5	and/or electives
Requirements and/or electives** (foreign language, as required)**		

Junior

Phys 311 ...4	Phys 312 ...4	Requirements
Phys 321 ...4	Phys 322 ...4	and/or electives
Math 440 ...3	Math 441 ...316
Requirements and/or electives** (foreign language, as required)**		

Senior

Phys 411 ...4	Phys 412 ...4	Requirements
Phys 451 ...4	Phys 452 ...4	and/or electives
	16
Requirements and/or electives** (foreign language, as required)**		

**See requirements for the BS degree.

***The student may fulfill the freshman English requirement by selecting one course (5 hours) from 177, 178, 179, 187, 188 and 189 or the student placed in Honors English should select one course (5 hours) from 197, 198 and 199.

****Students who are not well prepared may take Phys 201, 202 and 203 in the freshman year and 305, 306 in the sophomore year on the advice of the chairman of the Department of Physics.

Preparation for Sanitarians

See Preparation for Microbiology, Public Health and Sanitarians.

Preparation for Theology and Religion

It is recommended that a student planning to enter a theological seminary or to do graduate study in religion take a broad program of undergraduate courses including the following (with minimal quarter hours of credit suggested in each area): philosophy (12); Bible and history of religions (15); English composition and literature, and world literature (21); history (15); social sciences (21); foreign languages (18, preferably in Greek, Hebrew, Latin, French or German); natural sciences (9); public speaking (3). The course program should be arranged to meet the requirements of the bachelor of arts degree. It is advisable to major in philosophy, English or one of the social sciences. The student should also check the entrance requirements of the theological seminary or graduate school of his choice and plan his course accordingly.

Preparation for Veterinary Medicine

Schools of veterinary medicine require a minimum of 90 quarter hours of academic credit, exclusive of physical education and military science, for admission and many schools now require a bachelor's degree, with a limited number of students being accepted following the completion of the junior year with the degree *in absentia* requirements having been met.

Some schools of veterinary medicine require applicants to take the Veterinary Aptitude Test. A student should check with the veterinary school as to this requirement.

Freshman

Chem 121 Introduction	5
Chem 142 Chemical Energetics	5
Chem 143 Quantitative Analysis	5
Math 163A-B Intro to Calculus**	8

or

Math 263A-B Analytic Geometry and Calculus	10
Zool 101-203 Prin of Biol and Zool	11
Arts and Sciences College degree requirements and/or electives.	

Sophomore

Chem 301-302 Organic (short)	6
Chem 303-304 Organic Lab	3

Arts and Sciences

Phys 201-202-203 Introduction	12
Zool 303 Comp Vert Anatomy	6
Zool 325 General Genetics	5
Arts and Sciences College degree requirements and/or electives.	

Junior

Micr 411 General Microbiology	6
Zool 460 Animal Physiology	5
Zool 461 Animal Physiology Lab	4
Arts and Sciences College degree requirements and/or electives.	

Senior

Zool 404 Comparative Vertebrate Anatomy- Mammalian†	6
Zool 406 Vertebrate Embryology†	6
Zool 463 Cell Chemistry†	4
Arts and Sciences College degree requirements and/or electives.	

**Of the choices, this is recommended.

†Students who elect these courses and plan to leave at the end of the third year include these courses in the junior year.

Preparation for Water Resources

This curriculum is recommended for those students in the College of Arts and Sciences who wish to specialize in the investigation of surface-water and groundwater supplies. The student should major in geology, with additional courses in mathematics, chemistry, physics and civil engineering.

Students should enter the program as freshmen in order to complete the curriculum in four years. The following sequence of courses is recommended as a minimum:

Freshman

Geol 101 Earth Materials and Structure	4
Geol 102 Surface Processes and Environmental Geology	4
Geol 330 Principles of Geomorphology	5
Chem 121, 142, 143 Fundamentals of Chemistry	15
Math 263A, B Analytical Geometry and Calculus	10
Requirements and/or electives	

Sophomore

Geol 310 Rocks and Minerals	5
Geol 438 Glacial Geology	5
Math 263C Analytical Geometry and Calculus	5
Phys 251-252-253 General Physics	15
Requirements and/or electives	

Junior

CE 220, 321 Applied Mechanics	8
Math 340 Differential Equations	5

Geol 350 Principles of Sedimentology	4
Geol 353 Principles of Stratigraphy	4
Geol 360 Structural Geology	5
Geol 386 Geologic Field Methods	3
Geol 387 Summer Field Camp	9
Requirements and/or electives	

Senior

CE 340 Fluid Mechanics	5
CE 343 Hydrology	3
Geol 480-481 Appl Ground Water Hydrology I and II	8
Geol 476 Subsurface Methods	4
Geol 485 Geophysics	4

Additional courses in CE 415, 450, 451, 452 and economics are recommended.

Preparation for Advanced Training

BOTANY

(AB or BS Degree)

Freshman

Botany (General, Plant and Animal Biology) ..	15
Chem 121, 142, 143	15
Math 263A, 263B	10
Arts and Sciences college degree requirements or electives.	

Sophomore

Chem 301, 302, 303, 304 (For stronger grounding in chemistry, students should consider taking Chem 305, 306, 307, 308, 309 in place of Chem 301-304)	9
English 177, 178 or 187, 188	10
Botany 307, 308, 309	17
Arts and Sciences college degree requirements or electives.	

Junior

Phys 201, 202, 203	12
Bot 424	6
Bot 431	5
Zool 325	5
Arts and Sciences college degree requirements or electives.	

Senior

Bot 405	2
Bot 426	5
Bot 475	3
Arts and Sciences college degree requirements or electives.	

ZOOLOGY

The following program will provide the background required for admission to graduate school in zoology. Substitutions can be made in the junior-senior program, but it is

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recommended that the first two years be followed closely.

Freshman

Bot 102 Plant Biol	5
Chem 121 Introduction	5
Chem 142 Chemical Energetics	5
Chem 143 Quantitative Analysis	5
Zool 101-203 Prin of Biol and Zool	11
Arts and Sciences College degree requirements and/or electives.	

Sophomore

Chem 301-302 Organic (short)	6
Chem 303-304 Organic Lab	3
or	
Chem 305-306-307 Organic (long)**	9
Chem 308-309 Organic Lab**	4
Math 163A-B Intro to Calculus**	8
or	
Math 263A-B-C* Analytic Geometry and Calculus	15
Phys 201-202-203 Introduction	12
Arts and Sciences College degree requirements and/or electives.	

Junior-Senior

Chem 351 Physical Chemistry	4
IndT 336 Bioelectronics*	3
Geol 408 Stat Applications in Geol*	3
or	
Psy 321 Elementary Statistics*	5
Zool 303 Comparative Vertebrate Anatomy ..	6
Zool 325 General Genetics	5
Zool 406 Vertebrate Embryology	6
Zool 430-431 Invertebrate Zoology	12
Zool 448 Cell Physiology	4
or	
Zool 460 Animal Physiology	5
Zool 461 Animal Physiology Lab	4
Zool 463 Cell Chemistry	4
Zool 475 Animal Ecology	3
Zool 476 Animal Ecology Lab	2
Zool 477 Population Biology	4
Zool 478 Population Biology Lab	3
Zool 479 Evolution	4
Arts and Sciences College degree requirements and/or electives.	

*Suggested

**Of the choices, this is recommended.

The College of Business Administration

John M. Peterson, *Dean*

Herschel R. McNabb, *Assistant Dean*

Consistent with its character and history as a pioneer educational institution, Ohio University inaugurated courses in business administration in 1893, at a time when few colleges and universities offered instruction in this area. As the concepts of collegiate training for business broadened, the offerings were steadily expanded. The College of Business Administration was established in 1936 and became an accredited member of the American Association of Collegiate Schools of Business in 1950. Today the college offers a program which leads to the bachelor of business administration degree with majors in accounting, business economics, finance, general business, management, marketing and quantitative methods.

The primary objective of this college is to educate students seeking professional careers primarily in business, as well as in government and nonprofit organizations. In our complex and rapidly changing modern society, an administrator is necessarily a generalist who must make decisions within organizations regarding both technical and social matters in the face of uncertainties and conflicting pressures. Thus, the degree core curriculum provides for an understanding of legal procedures, economics and behavioral science plus a working knowledge of skills of communication, accounting and quantitative methods. The core curriculum also includes introductory courses in the business functional fields of finance, production and marketing. In addition, a candidate for the degree must take a concentration of courses in a major field which prepares him for his initial entry into a career.

The College of Business Administration also has a significant responsibility in helping to educate citizen leaders who will participate as generalists in the collective decision making of a democratic society. All citizen leaders need a basic understanding of the legal and economic framework of society and of the internal operations of business and nonbusiness organizations. For this reason, a high proportion of enrollments in the college is by students registered in other colleges.

Each student in the College of Business Administration is required to take some courses offered by other colleges of the University in order to widen his scope of knowledge and interest. Through the use of elective hours in his program of study, the student in the College of Business Administration has wide latitude to emphasize a special interest either within this college or in other colleges. Because of this flexibility in tailoring his program to his own interest, each student is invited to seek the counsel of a faculty adviser assigned through the department of his designated major field.

Bachelor of Business Administration

A candidate for the degree of bachelor of business administration (BBA) must complete the general University requirements for graduation which call for a minimum of 180 quarter hours with a point-hour ratio of 2.0 (C) average on all hours attempted. This point-hour requirement applies to his total record and also to his record on courses

taken in this college. The College of Business Administration limits transfer credit for required business courses taken at a lower division level to such courses as it offers at that lower level.

Courses included in the 180 hour minimum for the BBA degree must be chosen so that at least 72 quarter hours are earned in areas of business and economics and at least 72 quarter hours are earned in nonbusiness areas (outside the college). However, eight hours of economics principles may be counted in either minimum. Among the nonbusiness courses, at least 20 hours must be in junior-senior level courses. Only three quarter hours of activity type courses in the area of health, physical education and recreation are acceptable within the 180 hours of credit toward the BBA degree; no credit is allowed for ROTC summer camp.

Core Curriculum

All candidates for the BBA degree must complete a core of courses covering a comprehensive background in the tools of analysis and the operational fields of business. These courses are:

Outside the College

- *Math 163A Introduction to Calculus 4
- *Math 163B Introduction to Calculus 4

Within the College

- *Acct 101 Managerial Accounting 4
- *Acct 102 Managerial Accounting 4
- BA 310 Production Management 4
- BA 470 Administrative Policy 4
- BIC 325 Communication Behavior in the Modern Organization 4
- BusL 355 Law and Society 4
- *Econ 101 Principles 4
- Econ 303 Economics of the Firm 4
- Econ 304 National Income and Employment Analysis 4
- Fin 325 Managerial Finance 4
- Mgt 300 Management 4
- Mkt 301 Marketing Principles 4
- *QM 200 Introduction to Business Data Processing 4
- *QM 201 Introduction to Probabilities and Statistics 4

Freshmen and sophomores expecting to work toward a BBA degree are urged to take the courses indicated with an asterisk (*) prior to their junior year along with courses outside the college. Students may enroll in

the first courses of their designated major fields during the sophomore year, for example, management majors may schedule BIC 325, BusL 355 and Mgt 300.

Major—Area of Concentration

All candidates for the BBA degree must designate a major or area of concentration and complete the courses required by the department offering that major. The course requirements for majors are indicated in the courses of instruction section of this bulletin. The majors are listed below by department:

Department of Accounting and Quantitative Methods

- Accounting
- Quantitative Methods

Department of Administrative Sciences

- Finance
- General Business (see Business Administration in the courses of instruction section)
- Marketing

Department of Economics

- Business Economics
- (A major in economics also is offered for the bachelor of arts degree administered by the College of Arts and Sciences.)

Department of Organizational Science Management

NOTE: For pass-fail option, see Guidelines and General Information, p. 239.

Preparation for Law School

A student in the College of Business Administration who plans to enter law school should follow the bachelor of business administration degree curriculum and also elect, with the approval of his adviser, courses in other fields, especially American government, American and English history, English, philosophy, interpersonal communication and additional theory courses in the College of Arts and Sciences, except those which substantially duplicate material found in the typical law school curriculum.

The Ohio Supreme Court in its regulations governing the admission to the practice of law in Ohio provides that a student entering law school must be able to show that he possesses an undergraduate degree from

an approved college if he wishes to take the Ohio Bar Examination. Law schools in the state of Ohio have supplemented this Supreme Court rule by requiring an undergraduate degree of all entering students, regardless of the state in which they plan to take the bar examination.

However, for the benefit of those students who do not plan to take the Ohio Bar Examination and who do not plan to seek admission to an Ohio law school, a degree *in absentia* program is available as described in the following statement.

A student who desires to enter a school of law located outside Ohio at the end of three years of college work and receive the bachelor of business administration degree from Ohio University after completing his first year in law school may do so provided the following conditions are met: the student has the written approval of the dean of the College of Business Administration; a minimum of 135 quarter hours, including the required courses in the bachelor of business administration degree curriculum (BusL 355 excluded), are completed with a point-hour ratio of 2.0 on all hours attempted; a full year's work in an accredited law school is completed with an average equivalent to that prescribed for the bachelor's degree at Ohio University and the student is eligible for advancement without condition to the second year.

If there is any possibility that a student will desire to take the Ohio Bar Examination, he is urged to obtain his undergraduate degree before entering law school.

Division of Business Research

The College of Business Administration has maintained a Division of Business Research since 1961. The objectives of the division are to stimulate, support and administer research originating in the college, to undertake selected research and information services regarding social and business problems for organizations outside the college, and to support the research and teaching-related activities of faculty and students in the college.

Center for Economic Education

Since 1952 the College of Business Administration has played a leadership role in forming and developing the Ohio Council on Economic Education. The council is a privately supported organization of leaders from education, business, labor, agriculture and other fields working together to promote greater economic understanding through objective study. It is affiliated nationally with the Joint Council on Economic Education, which in turn has worked closely with the American Economic Association and many other national organizations. The Ohio Council works cooperatively with and lends support to colleges and public schools throughout Ohio. Through its Center for Economic Education, the College of Business Administration contracts with the Ohio Council to provide certain administrative services for the council. In addition, a half-time staff member is provided as a contribution in support of the statewide program of the council.

Since 1967 the college has had a Department of Economic Education which offers graduate and undergraduate courses. Through the Graduate College, the department administers the master of arts degree in economic education and provides a major in economic education for the PhD program in secondary education. The latter is unique in the nation and together with the work of the council has placed Ohio University in a national leadership role in developing both teachers and administrative leadership in this field.

The Center for Economic Education provides the research support for both programs, that of the council and that of the department. Research is aimed to improve both teaching materials and teaching methods. Special attention is given to developing programs using television and other new technologies. The center also seeks grants to support summer workshops and institutes for public school teachers and in-service training programs in public schools in southeast Ohio. While some of these programs are administered outside the college, they are originated, led and staffed by the center, and they provide laboratory opportunities for faculty and students of the department.

The College of Communication

John R. Wilhelm, *Dean*

Richard E. Ham, *Associate Dean*

Thomas Dunlap, *Assistant Dean*

The College of Communication includes the School of Hearing and Speech Sciences, the School of Interpersonal Communication, the School of Journalism, the School of Radio-Television and the Center for Communication Studies.

The college was created to meet more fully the communication needs of a changing society. New forms of communication, the growth of information and interest in the theory and processes of communication and in communication barriers and disorders, the growth of the communication systems and the need for better communication between peoples, races, economic groups and among nations generally were all factors in a decision that Ohio University should move on a broad and substantial basis to prepare graduates for both traditional roles and for responsibilities not previously acknowledged.

The college is equipped to train graduates for professional careers in journalism, in broadcasting, for telecommunications, for organizational and interpersonal communication, as well as for research in all phases of communication, communication sciences and communication disorders. The college operates on the assumption that professional competency in these areas calls for the highest possible proficiency in the field of specialization, plus the broadest possible liberal education in other disciplines.

In journalism, a fully accredited school offers work in advertising, magazine journalism, news-writing and editing, public relations, radio-television, foreign correspondence and photojournalism.

The journalism school is the third largest in the country, and each year graduates more than 200 seniors who move into professional careers on leading newspapers, magazines and news-gathering organizations

as well as into advertising and public relations positions. Careers take them to all parts of the world.

The School of Radio-Television trains professionals for work in broadcasting generally, with specialized careers in radio-television news, station and network management, radio and television production and programming, as well as combined courses with the School of Journalism in reporting, editing, public relations, advertising and management.

Students work in the University broadcast services at radio station WOUB and the University television station, WOUB-TV, for actual experience. A special sports broadcast program is offered.

The School of Interpersonal Communication offers courses in public speaking, debate and discussion, small group and organizational communication, persuasion, rhetoric, the history of public address, etc. Students may study the problems and processes of communication first hand in business, industrial, educational and other types of organizations in the Center for Communication Studies and the Resource Center for Speech Communication. An intercollegiate forensic program is open to all students.

Hearing and speech sciences deal with the science of communication from the points of view of anatomy, neurology, physiology, physics, psychology and linguistics and with the pathology and treatment of speech and hearing disorders. The undergraduate program leads to a special certificate in speech and hearing therapy in the public schools. The program in speech pathology is accredited by the American Board of Examiners in Speech Pathology. Opportunities for clinical observation and experience are available in the extensive program of clinical services on-campus and in southeastern Ohio.

All programs of study at the undergraduate level lead to the bachelor's degree. More detailed descriptions and the requirements for the various majors offered in the four schools are given in the pages immediately following.

Graduate programs leading to the MA and PhD degrees are available in all areas. These are described in detail in the bulletins issued by the Graduate College.

Degrees and Requirements

The College of Communication offers curricula leading to the degrees of bachelor of science in communication (in the Schools of Interpersonal Communication and Radio-Television), bachelor of arts (School of Interpersonal Communication), bachelor of science in hearing and speech sciences (School of Hearing and Speech Sciences) and bachelor of science in journalism (School of Journalism).

Each candidate for a degree in the College of Communication must satisfy the requirements established by the school in which he is enrolled. In addition to program requirements for completion of the bachelor's degree, a student must check with his proposed school for possible entrance requirements which are separate from admission to the college. Those requirements are specified on the following pages.

Furthermore, he must have a minimum total of 180 earned hours with a 2.0 (C) average in that total. He must also have a 2.0 (C) average in all hours attempted in his program. Only the final hours earned when courses are repeated count toward graduation.

The minimum residence requirement for a student receiving a bachelor's degree from the College of Communication shall be the final year (three quarters) or the final 45 hours of credit. In certain cases exceptions to the residence requirement may be made by the academic dean in consultation with the director of the school in which the student plans to enter.

Advising

A student entering the College of Communication is assigned an adviser by the school which he plans to enter. Advisers will be assigned on the basis of student in-

terest. Faculty advisers assist in the preparation of a schedule each quarter so that the proper sequence of courses in the major and appropriately related courses are selected. *The student, however, is responsible for seeing that all requirements for the degree are being met.*

SCHOOL OF HEARING AND SPEECH SCIENCES

The school grants BS, MA and PhD degrees in hearing and speech sciences. On the bachelor's level students can major in public school therapy or in clinic therapy or both. All students are urged, but not required, to complete five consecutive years, terminating with the MA degree. Practicum training occurs in the campus Speech and Hearing Clinic, five regional clinics, public schools, mental retardation centers and other clinic or educational settings. Consultation concerning all types of communicative disorders may be arranged with the Coordinator of Clinical Services. Remedial training and diagnostic evaluation are provided without charge to University students. The audiological division evaluates all types of hearing problems from infancy to old age, including hearing aid evaluations. Nominal fees are charged for speech or hearing services to nonstudents. Research in therapy, acoustics and other areas of communication is implemented by well-equipped laboratories with four soundproof rooms.

The program in speech pathology is accredited by the American Board of Examiners in Speech Pathology and Audiology and is an affiliate member of the National Association of Hearing and Speech Agencies. A local speech and hearing organization is available to students. Information about organizations, major programs and requirements can be obtained in printed form from the school office in Ewing Hall.

SPECIAL NOTE: Entrance and program requirements in the School of Hearing and Speech Sciences currently are undergoing revision. For information concerning curricula, contact the School of Hearing and Speech Sciences.

Required courses in hearing and speech sciences may not be taken on a pass-fail basis.

SCHOOL OF INTERPERSONAL COMMUNICATION

Paul H. Boase, *Director*

The School of Interpersonal Communication offers a general, liberal education, emphasizing the scientific and artistic bases of communication. Students in three undergraduate majors study group communication and public address, communication theory and process, organizational communication as applied to business, industrial and educational institutions and speech communication in the secondary schools.

Specific major programs are developed to meet the needs of each student. A combination of areas and specific courses can lead to professional or preprofessional competence in such fields as teaching, foreign service, law, politics and government, theology, public relations, labor-management relations, personnel, campaign and propaganda administration and poll and survey management. The School of Interpersonal Communication places qualified undergraduate and graduate majors in trainee or internship programs on an appropriate credit or non-credit basis as suitable opportunities become available.

Through its forensic program, interpersonal communication provides the opportunity for all students to meet outstanding undergraduates from 300 or more colleges and universities in intellectual competition. Thirty tournaments at other schools and three held on campus enable students to develop skills in debate, extemporaneous speaking, oratory, discussion and oral interpretation. Excellence in scholarship and superior performance in speech communication are rewarded in several ways. Delta Sigma Rho-Tau Kappa Alpha, national honorary, is open to students in the upper third of their class who excel in forensics. The Lorin C. Staats Award is given to the outstanding senior who has participated with distinction in several forensic areas. The outstanding junior or senior debater receives the Francis McVicker Maxwell Award. Entering freshmen with outstanding high school forensic records are eligible for special talent awards of approximately \$400.

CENTER FOR COMMUNICATION STUDIES

The Center for Communication Studies consists of faculty members and space and equipment to generate, organize and conduct research across a broad spectrum of human communicative behavior and disseminate reports on the research. In addition, it provides a service function to both academic and nonacademic organizations by providing personnel to develop and teach courses and seminars dealing with communicative behavior and problems.

Research studies may be generated through standard academic channels or on a contract basis for organizations outside the University which desire to provide financial support for systematic research in the area of communicative behavior. Investigations typically employ experimental or descriptive research methodology; however, no methodological approach which shows promise is excluded.

RESOURCE CENTER FOR SPEECH COMMUNICATION

The Resource Center for Speech Communication identifies, develops and collects learning materials for use in the improvement of instruction in communication. Listening tapes, recorded speeches, films and teaching guides are among those items available to both faculty and students throughout the University. The center also takes an active role in planning and developing seminars, workshops and projects for students who are interested in communication and public education.

General Requirements for All InCo Majors

1. InCo 101 or InCo 103
2. Five hours of English selected from the following courses: 177, 178, 179, 187, 188, 189
3. *General Communication and Organizational Communication majors*
Nine hours in each of *two* of the following groups:
 - Humanities
 - Mathematics
 - Natural Sciences
 - Social Sciences

4. General Speech with Certification majors

Forty-five hours of general education distributed to include at least two courses in each of the following fields:

- Science and mathematics (one course in each)
- Comparative arts and/or philosophy
- Social science (Psy 101 required and can be counted as one of two courses)
- English and/or foreign language
- Physical education (three quarters)

Major in General Communication

Maximum freedom of choice in course selection is the primary feature of this major. Its aim is development of a broadly trained student in the liberal arts — humanistic aspects of interpersonal communication. Majors may prepare for careers in law, industry, theology, higher education, etc.

A. Required courses: 12 hours

Four courses are specifically required:

- InCo 107—Introduction to Language Behavior
- InCo 205—Techniques of Group Discussion
- InCo 215—Argumentation and Debate
- InCo 450—Introduction to Rhetorical Theory

B. Additional major courses: 40 hours

Students must select one course in *each* of the following areas:

Public Address	Communication Theory
InCo 353	InCo 334
A,B,C or D	InCo 335
InCo 412	InCo 444
InCo 433	InCo 446
InCo 435	InCo 452
InCo 442	
InCo 458	Group Process
InCo 460	InCo 404
	InCo 405
	InCo 445

Students must select one course in *three* of the following areas:

Theater Arts	Radio-Television
ThAr 100	R-TV 105
ThAr 215	R-TV 370
ThAr 220	R-TV 467
ThAr 301	
ThAr 370	Journalism
ThAr 371	Jour 105
ThAr 372	Jour 311
	Jour 412

Hearing and Speech Sciences

- HSS 108
- HSS 309
- HSS 310

The remainder of the 40 hours may be selected from interpersonal communication, radio-television, theater, journalism or hearing and speech sciences.

C. General electives as necessary to complete minimum University requirement of 180 quarter hours for graduation.

Major in General Speech with Certification

This major provides a program for students interested in high school teaching. The emphasis stresses a liberal arts education as related to interpersonal communication and professional preparation for state teaching certification.

This major provides three program options to students enrolled in the School of Interpersonal Communication: A communication comprehensive emphasis (90 quarter hours), a speech emphasis (60 quarter hours) and a speech-theater emphasis (68 quarter hours). The comprehensive communication program will certify a student to teach speech, journalism, reading and English, or any combination thereof in high school. The other programs will certify in speech only; the first emphasizes speech communication, the latter speech and theater. For details of these programs, see p. 53 under Education, or contact the Director of the Speech Communication Resource Center, in the Speech Building.

Major in Organizational Communication

This major provides a challenging program of study across the broad spectrum of human communicative behavior, emphasizing both theoretical bases and practical applications. It is designed for those students aiming for professional careers and administrative positions in business, educational, governmental, industrial, labor or other organizational units.

A. Major Course Requirements

InCo 205	4
InCo 210	2
InCo 334	4

InCo 404	3
InCo 442	4
InCo 445	4
InCo 446	4
InCo 498	4
InCo Electives (16 hours minimum)	

B. Requirements Outside the Major
Eng 308

C. Related Courses and Proficiency
Requirements

1. Either of the following:

- a. A statistics requirement of ten hours: Math 113 and Psy 321

OR

- b. A computer science requirement of ten hours: CS 201 and either CS 202, 251, 252, 254 or 308.

2. Completion of two related areas (minimum of 26 hours in each with at least 15 hours from courses numbered 200 or above) from the following suggested areas:

Behavioral Sciences
Comparative Arts
Government and Political Science
Humanities
Personnel Management and Administration

A list of suggested courses for the above areas may be obtained from the School of Interpersonal Communication.

D. General electives as necessary to complete minimum University requirement of 180 quarter hours for graduation.

advanced degrees; (2) to provide *liberal* and *cultural* background in the arts, literature, languages, social and natural sciences; (3) to promote scholarly research and achievements by the faculty and students; (4) to provide leadership and assistance to high school journalism and to professional associations on state, national and international levels, and (5) to set high standards of journalism ethics.

Journalism today is a profession—like medicine, law, teaching or engineering. It requires its practitioners to be culturally educated and professionally trained. Blending the liberal arts with professional courses, Ohio University journalism students take approximately three-fourths of their courses outside the professional school.

Five sequences are offered, all leading to the bachelor of science in journalism degree: *advertising-management*, *magazine journalism*, *news writing and editing*, *public relations* and *radio-tv news*. Along with these sequences, several specialized study areas are possible—for example, photojournalism or foreign correspondence.

While working toward their degrees, students may serve on the staff of *The Athens Messenger*, an independently owned daily newspaper. The news editor, managing editor and women's editor are faculty members of the School of Journalism. The student staff members of the *Messenger* gather and write news, edit local and Associated Press copy, write headlines and prepare copy and layouts. This training prepares students to take and hold jobs immediately after graduation.

The School of Journalism has its own Associated Press wire service for the use of students and teachers in all classes.

Practical experience is also available on a laboratory magazine and in graphics and advertising laboratories. Many students add to their experience by helping edit the Ohio University *Post*, daily campus newspaper or the *Athena*, University yearbook.

In radio-television news, students get practical experience in preparing and broadcasting news over the University's radio and television stations.

INTERNSHIP PROGRAM. Consistent with its policy of combining classwork with practical training, the School of Journalism has inaugurated a journalism internship program. Juniors or seniors are eligible for appointment as interns. The period of internship is ten weeks or more during the summer. The

SCHOOL OF JOURNALISM

Guido H. Stempel III, *Director*

Bachelor of Science in Journalism

The Ohio University School of Journalism is accredited by the American Council on Education for Journalism. It is one of a limited number of accredited schools and departments of journalism in the United States. As such, it is one of the members of the American Association of Schools and Departments of Journalism.

Purposes and Objectives

The purposes of the Ohio University School of Journalism are (1) to provide thorough broadly based *professional* education and training in journalism and communications, leading to the BSJ and

intern is provided with as varied experience in practical journalism as possible and is paid a moderate sum for his work and study. No credit will be granted for internship work itself. However, upon completion of the internship period, a student is permitted to enroll the following quarter in Jour 462, Internship, for three hours of credit. The selection of the interns is made by the director of the journalism internship program.

Curricula and Requirements

The American Council on Education for Journalism includes among its "Accrediting Standards" the following provision:

Generally three-fourths of the student's program should consist of courses in the liberal arts and sciences and one-fourth in professional courses in journalism.

Journalism students at Ohio University meet the above provision largely by fulfilling two sets of requirements: general and specialization area requirements. The first of these provides for a liberal arts and sciences core for all students, as follows:

Public Speaking	1 qtr.
Government	1 qtr.
Sociology or anthropology	1 qtr.
Economics	2 qtrs.
Psychology	1 qtr.
History	3 qtrs.
Foreign language or philosophy	3-qtr. basic sequence
English	4 qtrs.

To this liberal base, which should be the focus of the freshman year, journalism students add courses in a desired area or areas of specialization. This requirement may be filled by completing any one of three options:

1. a minimum of 36 hours in a single department within the College of Arts and Sciences (usually structured in accordance with the major requirements of the selected department),
2. a minimum of 18 approved hours in each of two departments in Arts and Sciences,
3. a minimum of 18 approved hours in one Arts and Sciences department and 18 approved hours in any other series of related courses.

Additional nonjournalism courses are required in some sequences. No course may be counted in more than one type of requirement. For example, a course used to

meet a general requirement may not be applied to a sequence or specialization area requirement as well.

To assure the liberal stress of the overall program, the professional content of the BSJ is limited to one-fourth of the 180 hours required for the degree. That is, the credits for all courses taken in journalism, radio-television and photography may not total more than 45 hours. All professional credits beyond 45 must be compensated for by non-professional hours over the required 180-hour total. Nonjournalism courses which are required in sequences are not to be counted as part of the 42-45 total professional hours.

Standards

- (1) Admission to the School of Journalism is formal and includes completion of an application form and a written statement of approximately 500 words as to why the student is applying. No student is considered a journalism major until this completed form is in his School of Journalism file.
- (2) To qualify to take Jour 231, students must first pass an English proficiency examination. Passing score for this test is 75. Any student who does not pass on his first effort will be permitted to retake the examination at a later date. Passing scores on retake examinations are 75 if the exam is taken as a sophomore, 80 for juniors and 85 for seniors.
- (3) To qualify for admission in Jour 231 students must achieve at least 25 words per minute on a typing examination. This exam is administered on the first day of the Jour 231 class.
- (4) To remain active in the BSJ program, a student must earn at least a C in News Reporting in his sophomore year.
- (5) Journalism majors are not permitted to take any journalism or R-TV courses pass/fail. This includes both core requirements and sequence requirements.

Journalism Sequences

All journalism majors complete a basic 14-hour core of three courses. These are: Jour 231, News Reporting (4), Jour 333, News Editing (4), Jour 411, Newspaper and

Communications Law (3) and Jour 412, Mass Media and Society (3).

Jour 105, Introduction to Journalism and Mass Communication, a freshman course, is optional but recommended for all those entering journalism.

The additional requirements for the various sequences are as follows:

Advertising	
Jour 221	5
Jour 250	5
Jour 321	4
Jour 323	2
or Jour 462	3
Jour 450	3
or Jour 482	4
Journalism electives to make 42-45 hours	
Mkt 301	4

Management	
Jour 250	5
Jour 321	4
Jour 323	2
or Jour 462	3
Jour 481	3
Journalism electives to make 42-45 hours	
Mkt 301	4
Acct 101	5
Acct 102	5
BusL 355	3
Psy 361	3-5

Public Relations	
Jour 221	5
Jour 331	3
Jour 334	2
or Jour 462	3
Jour 430	3
Jour 471	5
Jour 472	4

Choose two:	
Jour 441	4
Jour 351	3
Jour 450	3
Jour 465	3
Journalism electives to make 42-45 hours	
Psy 361	3-5
Select one course from the following	
Soc 310, 311, 412, 413 or 414	4

Magazine	
Jour 221	5
Jour 430	3
Jour 431	3
Jour 441	4
Jour 442	3
or Jour 331	3
or Jour 363	3
Journalism electives to make 42-45 hours	
Eng 307	5
or Eng 308	5
or Eng 309	5

News Editing and Writing	
Jour 221	5
Jour 311	5
Jour 331	3
Jour 332 and 334	2 and 2
or Jour 462	3
Jour 464	3
or Jour 465	3
Journalism electives to make 42-45 hours	

Radio-TV News	
Jour 351	3
Jour 353	2
or Jour 462	3
Jour 452	3
Jour 455	3
R-TV 106	4
R-TV 121	4
R-TV 310	4
Journalism electives to make 42-45 hours	

Carr Van Anda Program

Juniors with a 3.0 accumulative average in journalism and 2.5 accumulative average in all work may elect a sequence making up their own program in journalism. It will consist of the basic core of four courses plus the student's choice of journalism courses to equal 42-45 hours. The program must have the approval of the student's adviser and the director of the School of Journalism. Formal application is necessary.

SCHOOL OF RADIO-TELEVISION

Roderick D. Rightmire, *Director*

The School of Radio-Television offers programs of study leading to bachelor's, master's and doctoral degrees. The baccalaureate program is a professional degree program and is designed to prepare students for meaningful careers in all aspects of radio and television. Areas given special attention are history, business aspects of broadcasting, production and performance, writing, educational uses of media and programming. An experienced and diverse faculty is supplemented by an extensive program of guest lecturers from leading industry organizations.

The classroom and laboratory experiences of the students are augmented by practical on-the-air experience using three University owned and operated stations:

WOUB-AM, WOUB-FM and WOUB-TV. A large part of the operation of these stations is conducted by students in radio-television.

Talent scholarships of approximately \$600 per year, and renewable for four years, are available to high school seniors. These are based primarily on demonstrated talent in the field of radio-television.

In addition, the following awards are available in radio-television:

1. The Jesse Zousmer Foundation, created in memoriam to an Ohio University alumnus who was head of ABC Network News until his untimely death returning from Vietnam, provides funds for faculty and student documentary and public affairs productions.

2. The Richard Linke scholarship has recently been established to assist students in radio-television or related areas of the College of Communication.

3. Each year Ohio University participates in the James D. Shouse awards, presented by the AVCO Broadcasting Company, which provides a plaque and a monetary award to the outstanding senior in radio-television.

4. There is a student group affiliation with the Columbus Chapter of the National Academy of Television Arts and Sciences.

5. Affiliation with National Educational Television, the National Association of Educational Broadcasters, the International Radio and Television Society, the Ohio Association of Broadcasters and the Association for Professional Broadcast Education provides opportunities for contacts and broad development in the broadcasting field.

Summary of Requirements for Major in Radio-Television

REQUIRED COURSES IN RADIO-TELEVISION

R-TV 106	4
R-TV 311*	4
R-TV 316*	4
R-TV 330*	4
R-TV 370	4
R-TV 479	4

*Proposed change will combine 311, 316 and 330 into one 6-hour course, R-TV 200.

Three of the following courses12
R-TV 450 (4); R-TV 451 (4); R-TV 453 (4); R-TV 455 (4); R-TV 457 (4); R-TV 459 (4); R-TV 467 (4).

R-TV electives to make minimum of 42 total hours.

Required courses in radio-television may not be taken on a pass-fail basis.

REQUIREMENTS OUTSIDE THE MAJOR

1. Arts and humanities—20 quarter hours, including at least eight hours of 300-400 level courses. With approval of the adviser, courses may be elected in the following departments: classical languages, comparative arts, English, great books, modern languages, philosophy.

2. Social sciences—20 quarter hours, including at least eight hours of 300-400 level courses. With approval of the adviser, courses may be elected in the following departments: anthropology, economics, government, history, international studies, management, marketing, psychology or sociology.

3. Communication sciences—20 quarter hours, including at least eight hours of 300-400 level courses. With approval of the adviser, courses may be elected in the following departments: computer science, hearing and speech sciences, interpersonal communication or journalism.

4. Mathematics and/or natural sciences—Three courses, of which at least two must be in sequence. With approval of the adviser, courses may be elected in the following departments: astronomy, biology, botany, chemistry, geology, mathematics, physical science, physics or zoology.

In addition to these requirements, students are expected to demonstrate proficiency in typing and basic language skills.

The radio-television curriculum is being revised so that a student may select a specialized sequence of study in either production, management/administration or mass communication. In addition, an honors track option will be available to those students who qualify.

A freshman course, R-TV 105, Introduction to Mass Communication, is recommended to students entering radio-television.

The College of Education

Gilford W. Crowell, *Dean*

Dale F. Nitzschke, *Associate Dean*

Fred B. Dressel, *Assistant Dean*

The College of Education is devoted to the education of men and women who intend to enter the fields of teaching and educational administration. A wide range of programs prepares students for teaching in elementary schools, high schools and colleges; for positions as supervisors, school principals or superintendents, and for specialized educational work as guidance counselors.

All these programs include a broad base of general education, intensive preparation in the subjects to be taught and professional emphasis and focus which combine educational theory with actual practice in meeting the responsibilities of the profession. Each program is thus designed to prepare students to enter the profession possessing the liberal background, functional knowledge and professional understanding and skill which are required for professional success.

The College of Education is accredited by the North Central Association, the National Council for Accreditation of Teacher Education and is approved for teacher training by the State Department of Education of Ohio.

BACHELOR OF SCIENCE IN EDUCATION

The degree, bachelor of science in education, represents the completion of a program designed to develop in the student competence in three areas: the broad awareness of the principal academic fields developed through a true university education; the deeper study of the particular areas in which the student seeks the undergraduate mastery necessary for teaching these subjects, and the understanding of the professional responsibilities of teaching and demonstrated skill in meeting them.

The degree is granted upon completion

of the general graduation requirements of the University, including a minimum of 180 quarter hours with a point-hour ratio of 2.0 (C) on all hours attempted, but including only the final hours and points in repeated courses, and in addition a 2.0 point-hour ratio in the major teaching field.

NOTE: For pass-fail option, see p. 239.

A student who plans to teach in the elementary grades registers in the College of Education when he has completed the requirements of University College. The curricula offered by the College of Education include the requirements of the State Department of Education and qualify a student to obtain a provisional certificate to teach in the elementary grades or kindergarten-primary grades, depending upon the student's preparation.

Students who plan to teach high school academic or special subjects ordinarily enroll in the College of Education. The curricula of the College of Education include the requirements of the State Department of Education, and qualify the student to obtain a provisional certificate to teach the subjects indicated on the certificate.

Selective Admission and Retention

The following criteria will most likely be changed. The College of Education is considering extensive modifications in its Selective Admissions and Retention Program including the possibility of adopting a quota system. Information concerning the new criteria may be obtained by contacting the Student Personnel Services Office, McCracken Hall.

There are three distinct steps or admission phases in the admission and retention program.

Admission to Teacher Education

Application for admission to teacher education should be made during the third quarter of the freshman year. The criteria students must meet by the end of the quarter in which they apply are:

1. Completion of 45 quarter hours of credit,
2. Completion of Psy 101,
3. Sufficient grade point average to be above probationary status.

Applications for admission to teacher education may be obtained in the Student Personnel Services Office, McCracken Hall.

Admission to Junior Standing

Application for admission to junior standing in teacher education should be made at the end of the third quarter of the sophomore year. Criteria should be met by the end of the quarter in which the student applies.

1. Criteria that must be met by students in teacher education:
 - (a) Completion of 90 quarter hours of credit.
 - (b) Completion of Psy 375.
 - (c) Satisfactorily meeting the speech proficiency requirement.
The student must have successfully passed a speech proficiency test given by the Speech and Hearing Clinic.
 - (d) Attainment of a 2.0 accumulative point-hour ratio.
 - (e) A satisfactory report from the Health Center.
 - (f) A satisfactory report from the academic adviser.
 - (g) A satisfactory report from Student Records Office.
2. Special criteria for students in elementary education:
Completion of EdEl 200.
3. Special criteria for students in secondary education:
 - (a) Completion of EdSe 250.
 - (b) Achievement of a 2.0 accumulative point-hour ratio in each of the declared teaching fields.
 - (c) Adequate progress toward completion of the 45 quarter hours of general education required by the state certification law.

4. Special criteria for students in special education:
 - (a) All students except those in speech and hearing therapy must complete EdSp 271, 272, 373.
 - (b) Plan E, completion of EdEl 200 or Psy 373 or HECF 160 or 310.
 - (c) Plan S, completion of EdSE 250.
 - (d) Speech and hearing therapy majors must complete EdSp 271 or Psy 475.

ELEMENTARY EDUCATION

General Education

To be certified as an elementary school teacher in the State of Ohio a student must select the designated number of credit hours from courses in the following areas:

Arts and Crafts—six quarter hours (Art 360 will fulfill this requirement).

English—18 quarter hours (InCo 101 or, if this is waived, InCo 103; EdEl 321, Children's Literature, and Ling 270, The Nature of Language, included).

Health and Physical Education—nine quarter hours (HPER 202 and 270) and three hours of activity courses.

Mathematics—nine quarter hours (Math 120 recommended, [prerequisite high school algebra and plane geometry] but math courses carrying higher numbers may be taken by students who can meet the prerequisites).

Music—six quarter hours (Mus 160 and 161).

Educational Psychology—five quarter hours (Psy 375, Educational, plus prerequisite, Psy 101).

Science—12 quarter hours with at least one course in the physical sciences and one in the biological sciences required. Physical World 101 and Bot 101 or Zool 101 are suggested. Other courses may be selected from physical sciences, biological sciences or earth sciences. (Geology is acceptable as a physical science but geography is not. Physical World recommended for upper elementary teachers.)

Social Science—27 quarter hours from anthropology, economics, economic education, geography, government, history and sociology. A basic course in either

American government or U.S. history must be included. 12 quarter hours of social science, including Geog 121 (Cultural Geography), are prerequisites for EdEl 350.

Professional Sequence

The following professional courses are required of all elementary education majors. To be eligible to enroll in these courses students should note the prerequisites in the course description section of this catalog.

EdEl 200	4
EdEl 310	6
EdEl 321	4
EdEl 330	4
EdEl 340	4
EdEl 350	4
EdEl 460	4
EdPl 360	2
EdPl 461	6
EdPl 462	6
EdPl 465	3

Plans A, B and C

Each elementary education major is assigned to a given plan to help assure him of getting the professional courses he will need prior to the quarter when he is scheduled for student teaching. Students are assigned to one of three plans to equalize section enrollments by quarters, including student teaching. Generally, students seeking validation of their elementary certificate to teach special education are placed on Plan C. (Plan sheets are available in the office of the Department of Elementary Education, 202 McCracken Hall.)

Kindergarten-Primary Sequence. Students seeking kindergarten-primary certification should elect the courses listed above for the professional sequence and, in addition, EdEl 304 (3 hours) and EdEl 305 (3 hours), the two specialized courses in theory, materials and methods of kindergarten-primary education. Also, student teaching must be done on the kindergarten-primary level.

20-Hour Concentration. In addition to the general requirements, all elementary education majors are required to have at least 20 quarter hours of concentration in one field from any department in the University outside the College of Education, but including the School of Home Economics and School of Health, Physical Education and Recreation.

SECONDARY EDUCATION

Academic and Special

A junior or senior who has a 3.0 cumulative grade point average and is able to schedule 15 to 18 hours of independent study in the department may be eligible for departmental honors recognition. Honors work extends beyond the required teacher-education course sequences.

The following are the general requirements for all students in the College of Education who plan to teach in the secondary school.

Professional Requirements (37-40 hours):

Psy 375	5
EdSe 250	4
EdPl 360 or EdPl 361	2
EdSe 351	5
Methods in major field	3-6
EdPl 463-464 (EdPl 461 may be substituted for EdPl 464 where appropriate)	12
EdPl 465	3
EdSe 480 (after student teaching)	3

General Education

Physical Education: 3

Students must complete a total of 45 quarter hours of general education. These 45 quarter hours must be distributed so as to include at least two courses in each of the following fields:

1. Science and mathematics (one course in each)
2. Comparative arts and/or philosophy
3. Social science
Psy 101 is required
4. English, and/or foreign language
InCo 103 is required unless waived on basis of a high school speech course

If the major subject is the same as one of the above fields, then ten quarter hours of the major may be counted towards the corresponding general education field as well as the major.

A more detailed description of the general education requirement and the requirement for each of the following majors may be obtained by contacting the Student Personnel Services Office, McCracken Hall.

Major Requirements

ART EDUCATION: 82

A. Select at least 45 quarter hours in studio courses including at least one course from each of the following areas:

Education

1. Two-dimensional art
2. Three-dimensional art
3. Graphic communication
- B. Select 27 quarter hours of art history and/or comparative arts *except* CA 303, 304, 305, History of Oratory and CA 321, 322, 323, History of Music.
- C. Select at least ten quarter hours of electives in art and/or art history.

BOOKKEEPING-BASIC BUSINESS: 70

Acct 101 and 102-Managerial	8
Acct 303-Act Prin and Procd.	4
BusL 355, 356	8
Econ 101 and 102-Prin	8
Geog 332-Econ	4
Jour 250-Adv Prin	5
Mkt 301 and 302	8
Mkt 458-Sales Mgt OR	
Mkt 444-Consumer Behavior	3-4
Fin 325	4
Mgt 300-Mgt	4
BIC 325	3
CS 252-Intro to Dig Comp	
Programming for Bus	5

COMMUNICATIONS

COMPREHENSIVE-OPTION ONE (SPEECH EMPHASIS): 94

1. Speech (41 hours)
 - A. Fundamental Processes
 - *InCo 101-Speech Fund
 - *InCo 445-Comm in Organ
 And six quarter hours of elec selected from:
 - InCo 107-Intro to Verbal
 - Lang Behav
 - InCo 335-Bases of Speech Comm
 - InCo 104-Listening
 - InCo 433-Applic of Gen
 - Semantics
 - InCo 488-Cross-cultural Comm
 - B. Theory and History of Speech
 - *InCo 334-Intro to Comm
 - Process
 - *InCo 353A, or B or C-Hist
 - and Crit of Oratory
 And nine quarter hours of elec selected from:
 - InCo 217-Forensic Workshop
 - InCo 425-Directing the Foren
 - Program
 - InCo 435-Theories of Argument
 - InCo 442-Comm and Persuasion
 - InCo 446-Comm and the
 - Campaign
 - InCo 452-Psych of Speech
 - InCo 450-Intro to Canonical
 - Rhetoric

InCo 458-Responsibilities and	
Freedom of Sp	4
InCo 460-Contemp Public Address	4
InCo 481-Measurement of Sp Comm ..	4
R-TV 370-Broadcasting and the	
Public	4
R-TV 441-Instruct Methods in	
Educ TV	4
ThAr 215-Principles of Acting	3
ThAr 370 or 371 or 372	
Theater Hist	3
ThAr 460-Directing I	3

C. Forms of Speech

*InCo 105 or R-TV 105 or Jour	
105-Intro to Comm	4
*InCo OR ThAr 220-Oral	
Interp of Lit	3

And 8 hours selected from at least
3 of the 6 areas:

Platform Speaking

InCo 103-Public Speaking	4
InCo 412-Advanced Public Spkg	4

Discussion

InCo 205-Group Discussion	4
InCo 210-Parliamentary Proc	2
InCo 404-Interviewing	3
InCo 405-Conference Leadership	4

Debate

InCo 215-Argumentation and	
Debate	3

Acting

ThAr 415-Practicum in Acting	4
ThAr 441-Creative Dramatics	3

Playdirecting

ThAr 465-Practicum in Directing	1-4
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Technical Theater

ThAr 405-Practicum in	
Management	1-4
ThAr 434-Practicum in	
Production Design	1-4

*Required

2. English (30 hours)

Freshman English	5
Eng 201, 202, 203	5
Eng 301, 302, 303, 304, 311, 312,	
313, 314, 309, 411, 412, 413, 414..	5
Eng 317, 321, 322, 417, 421, 422	5
Hum 107, 108, 109, 307, 308,	
309, Eng 204, 205, 206, 306,	
341, 441, or courses in foreign	
lit. in translation (e.g. ML	
335-339)	5
Eng. elec. including any course	
from the list above not taken	
to meet the minimum re-	
quirement, or other Eng. courses ..	5

3. Journalism (14 hours)
 Jour 231-Basic Newswriting 4
 Jour 221-Graphics 5
 or
 Jour 331-Rept Contemp Issues 3
 or
 Jour 441-Magazine Feature Writing 4
 Jour 333-Editing 3
 Jour 484-Supervising School and
 College Public 4
4. Reading (9 hours)
 EdEl 411-Diagnosis and Treat of
 Read Disabilities 4
 EdSe 420-Tchg Read in the Jr. and
 Sr HS 5

COMMUNICATIONS COMPREHENSIVE-OPTION TWO (ENGLISH EMPHASIS): 90

1. English (40 hours)
 Freshman English 5
 Eng 201, 202, 203 5
 Eng 301, 302, 303, 304, 311, 312,
 313, 314, 409, 411, 412, 413, 414, 431 . 5
 Eng 317, 321, 322, 417, 421, 422 5
 Hum 107, 108, 109, 307, 308, 309,
 Eng 204, 205, 206, 306
 Eng 341, 441 or courses in foreign
 literature in translation (e.g.
 ML 335-339) 5
 Eng 308 5
 Eng 307, 351, 352 5
 Eng elec including any courses from
 the list above not taken to meet
 minimum requirement or other
 courses 5
2. Speech (27 hours)
 *InCo 101-Speech Fundamentals 3
 *InCo 445-Comm in Organ 4
 Theory and Hist of Speech
 *InCo 334-Intro to Comm Processes 4
 *InCo 353A, or B, or C-Hist and
 Critic of Oratory 3
 Forms of Speech
 *InCo 105 OR R-TV 105 OR Jour
 105-Intro to Com 4
 *InCo OR ThAr 220-Oral Inter of Lit. ... 3
 Seven hrs of elec selected from:
 InCo 105-Public Spkg 4
 InCo 205-Group Discus 4
 InCo 215-Argum and Debate 3
- *Required
3. Journalism (14 hours)
 Jour 231-Basic Newswriting 4
 Jour 221-Graphics 5
 or
 Jour 331-Reporting Contemp Issues 3
 or
 Jour 441-Magazine Feature Writing 4
 Jour 333-Editing 3

- Jour 484-Supervising School and
 College Public 4
4. Reading (9 hours)
 EdEl 411-Diagnosis and Treat of
 Read Disab 4
 EdSe 420-Tchg Read in Jr and
 Sr HS 5

ENGLISH COMPREHENSIVE: 67

- Freshman English 5
 Eng 201 OR H297-Interp Fict 5
 OR
 Eng 202 OR H298-Interp of Poetry 5
 OR
 Eng 203 OR H299-Interp of Drama 5
 Eng 301 OR 302 OR 303-Shakespeare 5
 Select one:
 Eng 307, 351, 352 5
 Eng 308-Adv Comp 5
 Eng 311-Early Engl Lit 5
 OR
 Eng 312-Renaiss Eng Lit 5
 Eng 313-Rest and Neo Lit 5
 OR
 Eng 314-Rom and Vic Lit 5
 Eng 321-Amer Lit to Civil War 5
 OR
 Eng 322-Am Lit from Civil War 5
 English elective beyond freshman level 5
 Select one:
 Eng 409, 410, 411, 412, 413, 414, 417, 421,
 422, 431, 441, 451, 461, 462, 463, 470.
 EdSe 420-Tchg of Read in Jr and
 Sr HS 5
 Select from areas of theater, speech,
 Lib Sci 7
 linguistics, comp arts/phil
 Select from Hum 107, 108, 109, OR 307,
 308, 309, Eng 204, 205, 206, 306, 341,
 441, or courses in foreign lit in translation
 (e.g. ML 335-339). 5

FAMILY LIFE EDUCATION: 90

- Psychology: 9
 HECF 160-Intro to Child Develop 4
 Psy 436-Soc Psych 5
- Biology: 7
 Zool 345-Human Physio 4
 HPER 204C-Drug, Alcohol and
 Tob Educ 3
- Health: 20
 HEFN 128-Intro to Nutrit 3
 HPEC 250-Recreat 5
 HPER 380-Safety Educ 4
 HPEC 227-First Aid 4
 HPEC 202-Pers and Com Health 4
- Sociology: 4
 Select one of the following:
 Soc 320-Intro to Fam Socio 4
 Soc 360-Social Problems 4

Education

Marriage and the Family: 19	
HECF 270-Family Living	3
HECF 371-Family Develop	3
HECF 471-Family Life Educ	4
HECF 462-Read in Child Devp and/or Family Living	6
HECF 360-Human Sexuality	3
Household Management: 12	
Select 12 hrs from the following:	
HEFN 122-Food Science and Princ	4
HEHM 395-Home Mgmt	3
HEHM 180-Furnishing Today's Home	3
HEHM 384-Family Housing	3
HETC 317-Textiles and Dress Mod Liv	3
Consumer Economics: 7	
HEHM 390-Family Con. Econ	3
EcEd 447-Econ Anal	4
Select 12 qtr hours from any one or combination of the above fields	12

GENERAL SPEECH-OPTION ONE (INCO EMPHASIS): 60

1. Fundamental Processes-(13 hours)	
*InCo 101-Speech Fund	3
*InCo 445-Comm in Organ	4
And 6 qtr hrs of elec selected from:	
InCo 104-Listening	2
InCo 107-Intro to Verbal Lang Behav	3
InCo 335-Bases of Sp Comm	3
InCo 433-Applic of Gen Semantics	4
InCo 448-Cross-cultural Comm	4
2. Theory and History of Speech (24 hours)	
*InCo 334-Intro to Comm Process	4
*InCo 353A, B or C Hist and Crit of Oratory	3
And 17 qtr hrs of elec from:	
InCo 217-Forensic Workshop	1-6
InCo 425-Directing the Forensics Program	1-6
InCo 435-Theories of Argument	3
InCo 442-Comm and Persuasion	4
InCo 446-Comm and the Campaign	4
InCo 450-Intro to Canonical Rhetoric	3
InCo 452-Psych of Speech	4
InCo 458-Respons and Freedom of Speech	4
InCo 460-Contemporary Public Address	4
InCo 481-Measurement of Speech Comm	4
R-TV 370-Broadcasting and the Public ...	4
R-TV 441-Instructional Methods in Educ TV	4
ThAr 215-Principles of Acting	3
ThAr 370 OR 371 OR 372- Theater History	3
ThAr 460-Directing I	3

3. Forms of Speech (23 hours)	
*InCo, R-TV, Jour 105- Intro to Com	4
*InCo or ThAr 220-Oral Interp of Lit	3
And 16 qtr hrs of elec from 3 of the 6 areas:	
<i>Platform Speaking</i>	
InCo 103-Public Speaking	4
InCo 412-Advanced Public Speaking ...	4
<i>Discussion</i>	
InCo 205-Group Discussion	4
InCo 210-Parliamentary Proc	2
InCo 404-Interviewing	3
InCo 405-Conference Leadership	4
<i>Debate</i>	
InCo 215-Argumentation and Debate ...	3
<i>Acting</i>	
ThAr 415-Practicum in Acting	4
ThAr 441-Creative Dramatics	3
<i>Playdirecting</i>	
ThAr 465-Practicum in Directing	1-4
<i>Technical Theater</i>	
ThAr 405-Practicum in Mgt	1-4
ThAr 434-Practicum in Prod Design ...	1-4
*Required	

GENERAL SPEECH-OPTION TWO (THEATER EMPHASIS): 94

1. Fundamental Process-(12 hours)	
InCo 101-Fundamentals of Speech	3
InCo 335-Bases of Speech Communication	3
ThAr 115A,B,C-Voice for the Stage	6
2. Theory and History-(39 hours)	
InCo 334-Intro. to Communication Process	4
ThAr 130A,B,C-Technical Production ...	9
ThAr 215-Principles of Acting	3
ThAr 370,371,372-Theater History	9
ThAr 460-Directing I	3
Select one of the following courses:	
R-TV 370-Broadcasting and the Public ..	4
R-TV 441-Instruction Methods in Educ. TV	4
Select two from the following courses (8 hours):	
ThAr 470-Greek Theater and Drama	4
ThAr 471-Roman and Medieval Theater .	4
ThAr 472-Renaissance Theater and Drama	4
ThAr 473-Restoration and 18th Century Theater	4
ThAr 474-Baroque European Theater ...	4
ThAr 475-19th Century European Theater	4
ThAr 476-Contemporary Theater	4
ThAr 477-American Theater and Drama .	4
3. Forms of Speech: (29 hours)	
InCo or ThAr 220-Oral Interpretation ...	3
InCo 103-Public Speaking	4
InCo 215-Argumentation and Debate	3
ThAr 116A,B,C-Body Training	6
ThAr 330A,B,C-Stagecraft	9
ThAr 337-Basic Makeup	1
ThAr 461-Directing II	3

4. Speech/Theater for the Elementary Grades:
(15 hours)
ThAr 340-Dramatic Literature for
Children 3
ThAr 440-Children's Theater 3
ThAr 441-Creative Dramatics 3
ThAr 434-Practicum 1
ThAr 525-Practicum in School Theater .. 1-6
Sufficient theater electives to complete 15 hours.

HISTORY-MODULAR SOCIAL STUDIES PROGRAMS: 78

- A. History: 48
Hist 101, 102, 103-West Civ 12
Hist 211, 212, 213-U.S. Hist 12
Six hrs in each of the following fields:
European History 6
U.S. History 6
Hist 111-Origins of West Civ OR
Anc-Med Hist* 4-6
Other (African, Asian, Latin
American, Middle East) 6
12 of the above 24 hrs must be at
400 level
*If necessary, select sufficient
elect in history to bring total to
48 hrs.
Arts and Sciences students must take
an ancient history or medieval
history sequence for 6 hrs.
- B. Select one of the following fields and complete
at least 30 qtr hrs in that field:
1. Government: 30
 - a. Govt 101 and 102
 - b. Choose one course from each of
the following:
 1. Govt 311, 332, 333, 434A or
B, 335, 341, 432, 438, 445, 446,
447A or B
 2. Govt 401, 402, 409, 413
 3. Govt 304, 306
 4. Govt 320, 323
 5. Govt 350
 6. Choose one of the following:
Govt 405, 417, 418, 481
 - c. Choose enough electives in gov-
ernment to bring the total number
of hrs earned in that field to 30.
 2. Economics: 30
 - a. Econ 101 and 102 (or 301 and 302).
 - b. Econ 303 and 304
 - c. Select sufficient hrs from the fol-
lowing listing to complete 30 hrs
of economics:
Econ 340, 415, 425 or 426 or
429, 480, EcEd 446.
 3. Social Psychology: 30
 - a. Required courses:
Psy 404, 436, 433, 321, 326.

- b. Select five (5) hrs from the following:
Psy 490F or 410 or any 2 of the
following:
Psy 490B, 490C, 490D, 490E.
4. Geography: 30
 - a. Required courses:
Geog 101, 121, 130, 235, 260.
 - b. Select two (2) electives in regional
geography so as to include one
course in the western region and
one in the non-western region.
 - c. Select two (2) elective courses in
upper level systematic geography.
5. Sociology and Anthropology: 30
 - a. Soc 101 or 302
 - b. Anth 270 or 370
 - c. Select sufficient elect in both fields
to complete 30 hrs including 8 hrs
at the 400 level.

INDUSTRIAL ARTS COMPREHENSIVE: 100

IT 115-Metal Fabri	4
IT 216-Metal Mach	4
IT 220-Small Engns	3
IT 244-Graphic Proc	3
IT 250-Wood Industry	5
IT 270-Rep Writing	3
IT 301-Ceramic Prod	3
IT 308-Plastics	3
IT 310-Metal Castg	3
IT 320-Hydraulic Controls	3
IT 332-Electronics	5
IT 361 Product Dsgn	2
IT 390-Materials	3
EG 101 and 102-Engineer Drawing	6
IT and EG technical electives:	25
(concentrated in 2 flds)	
Chemistry, physics and mathematics (Min of one course in each fld)	25

LATIN: 39-51

- (Needs second teaching field)
- | | |
|-------------------------------|----|
| Lat 101, 102, 103-Basic | 12 |
| 39 hours above Lat 103 | 39 |
- including Clng 401 and Lat 433, one other
400 level course.
- Students entering with 3 or 4 yrs of high
school Latin will normally register for
Lat 351 and then must complete at least
30 quarter hours including 401, 433 and
one other 400 level course.

MATHEMATICS: 60

- A. Select at least 50 quarter hours* of mathe-
matics at the 200 level or above excluding Math
320 and 420 but including at least 12 quarter
hours of analytic geometry and calculus. A maxi-
mum of 10 quarter hours of computer science at
the 200 level or above may be included in this
50 quarter hour block.

B. 10 quarter hours additional are required and may be selected from any one or combinations of the following:

1. Mathematics at the 200 level or above excluding Math 320 and 420
2. Computer Science at the 200 level or above
3. Ast 300, 301, 350
4. CE 220, 321
5. Phys 251-252
6. Phil 320, 420, 421

*For students enrolled in the College of Arts and Sciences this 50 quarter hour block must include at least 9 quarter hours of mathematics at the 400 level.

MODERN LANGUAGES

COMPREHENSIVE: 56-68

Lang 111, 112, 113*-Basic	12
All students must have 56 hours above Lang 113.	
Lang 211, 212 and 241-Inter	12
Lang 341, 342 and 343-Adv Conv and Comp	12
Lang 348 OR 349-Civ and Culture	3
Lang 355 and 356-Lit Readings	8
Lang 410-Lang Lab	3
Lang 437-Phonetics	3
Lang 449 OR 441-Stylistics	3
Electives at 400 level or above	9
Select 3 hours from the following:	3
Cultural Anthropology	
Cult and Civ of Country	
History of Country	
Linguistics	

(Study Abroad Recommended)

- * 1 yr. or less H.S.—start Lang 111
 2 or 3 yrs H.S.—start Lang 211
 4 or more yrs. H.S.—start Lang 241

MUSIC EDUCATION WITH

INSTRUMENTAL EMPHASIS: 108

Applied Music (22 hrs in prin instr)	22
Applied Music: Second Instr-Piano or sufficient prof to pass Prof Test-Sec School of Music	6
Major Performing Groups (Minimum one per quarter)	11
Mus 90 (to be taken each quarter)	0
Mus 101, 102, 103-Theory	9
Mus 201, 202, 203-Harmony	9
Mus 204 and 205-Dict and SS	6
Mus 206-Form and Anal	3
Mus 261-String Meth and Mat (3 qtr, 2 hr ea)	6
Mus 263-Wind and Perc Meth	12
Mus 304-Instrumentation	3
Mus 321, 322, 323	9
Mus 364-Sec Schl Voc	3
Mus 455 and 457-Cond	6
Mus 401-Keybrd Harm	3

MUSIC EDUCATION WITH VOCAL EMPHASIS: 106

Applied Music:	22
("Principal instrument" voice or piano)	
If major is piano then must take Mus	
451, 452, 453-Accm	3
Secondary Instrument: (voice or piano suf-	
ficient to pass prof test-Sec School	
of Music)	6
Major Performing Groups (minimum one	
per quarter)	11
Mus 90 (to be taken each quarter)	0
Mus 101, 102, 103-Theory	9
Mus 201, 202, 203-Harmony	9
Mus 204 and 205-Dict and SS	6
Mus 206-Form and Anal	3
Mus 261-String Meth	4
(2 qtr., 2 hr ca)	
Mus 263-Wind and Perc	6
(3 qtr, 2 hr ea)	
Mus 321, 322, 323-Hist of Mus	9
Mus 455 and 456-Cond	6
Mus 364 and 365-Sec Schl Vocal Tech	6
Mus 401-Keybrd Harm	3
Mus 468-Gen Mus in Jr HS	3

SCIENCE MODULAR PROGRAM

Students wishing to major in science must choose one of the following combinations:

A. Possible combinations with required tools:

1. Biology-Physics: 103
 Biology-36
 Physics-31
 Tools-36 Chem 121, 122, 123, 301-17
 Math 263A, 263B, 263C, 340-20
 (Chem 302 rec.)
2. Biology-General Science: 84
 Biology-36
 General Science-15 (Earth Science)
 Tools-33 Chem 121, 122, 123, 301-17
 Phys 201, 202, 203 seq.-12
 Math (113 or above)-5
 (Chem 302 rec.)
3. Biology-Earth Science: 92
 Biology-36
 Earth Science-32
 Tools-24 Phys 201, 202-8
 Chem 121, 122, 123, 301-17
 (Chem 302 rec.)
4. Biology-Chemistry: 91
 Biology-36
 Chemistry-37
 Tools-18 Math 263A and B-10
 Phys 201, 202-8
 Recommend Math 263C-5 and Phys 203-4
5. Chemistry-General Science: 94
 Chemistry-37
 General Science-30
 Tools-27 Phys 201, 202, 203-12
 Math 263A, B, C-15

6. Earth Science-Chemistry: 92
Earth Science-32
Chemistry-37
Tools-23 Math 263A and B-10
Phys 201, 202-8
Biology 101-5
Recommend Phys 203-4
7. Earth Science-Physics: 92
Earth Science-32
Physics-31
Tools-29 Math 263A, B, C and Math 340-20
Chem 121, 122-9
Recommend Chem 123-4
8. Earth Science-General Science: 77-84
Earth Science-37
General Science-15 (Biological Science)
Tools-25-32 Phys 201, 202, 203-12
Chem 121, 122, 123 seq-13
Math through Trig in either HS or College-7
9. Physics and Chemistry: 88
Physics-31
Chemistry-37
Tools-20 Math 263A, B, C and Math 340-20
10. Physics and General Science: 94
Physics-31
General Science-30
Tools-33 Math 263A, B, C and Math 340-20
Chem 121, 122, 123 seq-13

B. Area and Course Requirements:

1. Biology: 34-36
Bot 101
or
Zool 101
Bot 102
Zool 203
Bot 424-Plant Phys
or
Zool 460-Animal Phys
Zool 325-Gen Genetics
Bot 475-Evolution
or
Zool 479-Evolution
Bot 425-Plant Autecology
or
Bot 426 Plant Synecology
2. Chemistry: 37
Chem 121, 142, 143-General
Chem 301 AND 302-Organic
OR
Chem 305, 306, 307
Chem 303 AND 304-Org Lab
OR
Chem 308 AND 309
Chem 325 OR 484 AND 485
Chem 351-Physical Chem
Chem 476-Mod. Inorganic
3. Earth Science: 32
Geog 211-Meteorology
Astr 300-Elem Astron

Geol 101, 102, 103-Elem of Geol
Select one course from three of the following four areas:

- a. Geol 310-Rocks and Min
 - b. Geol 330 OR 331-Geomorph
 - c. Geol 454 OR 340-Paleon
 - d. Geol 401-Oceanography
4. General Science: 45
a. Physical Science: 15
(Select a combination of physics AND chemistry to total at least 15 qtr hrs)
 - b. Biological Science: 15
Biol 101, 102, 103
 - c. Earth Science: 15
Geol 101, 102, 103
Select either Geog 211 or Astr 300.
 5. Physics: 31
Intro Phys 201, 202, 203, 305, 306
OR
General Phys 251, 252, 253, 306
Physics elect: 14
Select any of the 300 or 400 level courses in physics for which prerequisites have been met.

SOCIAL STUDIES

COMPREHENSIVE: 90

A. History: 36

1. Select two of the following:
Hist 101, 102, 103-West Civ 8
2. Select two of the following:
Hist 211, 212, 213-U.S. Hist 8
3. Select 6-9 qtr hrs in either U.S. or
Modern European history at 300 level or
above (Ohio history is recommended) .. 6-9
4. Select 9-12 qtr hrs of non-U.S.,
non-Modern European history 9-12

B. Select a minimum of 18 qtr hrs in ONE of the following fields AND a minimum of 8 qtr hrs in each of the other fields:

1. Government:
Govt 101* and 102*-Am Nat'l
Select any 10 addtl qtr hrs to fulfill 18 hr fld
2. Economics:
Econ 101* and 102* OR 301* and 302*
Elect any 10 additional qtr hrs from the following list to fulfill 18 hr field:
Econ 303, 304, 323, 340, 425, 426, 429, 415, 480, EcEd 446.
3. Geography:
Geog 101*, 121*, 130*
Select one elective in regional geography and one elective in upper level systematic geography and any needed electives.

Education

4. Sociology:
Soc 101* or 302*
Soc elec including one course at the 400 level to complete 18 hr fld (select one course to complete 8 hr fld)*
5. Anthropology:
Anth 270* or 370*
Anth elec including one course at the 400 level to complete 18 hr fld (select one course to complete 8 hr fld)*
- C. Select elect in any one or combinations of the above flds to bring total qtr hrs to 90.

*Courses required in 8 qtr hr minimum choice.

SPECIAL EDUCATION

Four professional preparation programs are available to prospective teachers of exceptional children. These programs are for teachers of (1) educable mentally retarded children, (2) trainable mentally retarded children, (3) children with learning and behavior disorders and (4) speech and hearing therapy.

EDUCABLE MENTALLY RETARDED CHILDREN

In order to earn a bachelor of education degree in special education, a student must select the designated number of credit hours from a selected group of courses. Two degree programs, Plan E for students planning to teach educable mentally retarded children at the elementary level and Plan S for students planning to teach such children at the secondary level, are outlined below. Each of the two plans meet the University requirements for graduation and the Ohio State Department of Education teacher certification requirements in the area of educable mental retardation.

PLAN E (Elementary Level)

General Requirements

General Education:	
InCo 101	3
Physical Education	3
Humanities	8
Natural Sciences	8
Social Sciences	8
Psychology	
Psy 101	5
Psy 375	5

Elect 8 additional hours* 8
(See below)

English
One course in 170 or 180 series 5

Speech Pathology
HSS 108 or HSS 336 3

Mathematics
Math 120 recommended 5

Music
Mus 160 3
Mus 161 3

Arts and Crafts
Art 360 6

Physical Education
HPER 202 4
HPER 435 or HPER 250 or
HPER 333 4-5

Audio-Visual
EdAv 480 4

Requirements in Major

Cognate Areas
Psy 373
or
EdEl 200 or
HECF 160 or 360 4-5
EdEl 310 6
EdEl 460 4

Special Education
EdSp 271 3
EdSp 272 3
EdSp 373 3
EdSp 374 4
EdSp 375 4
EdSp 376 2
EdSp 377 3
EdSp 470 3
EdSp 474 4
Elect 2 additional courses** 6

Professional Laboratory Experiences
EdPl 360 or 361 2
EdPl 461-462 12
EdPl 465 3
Minor*** 20
See below****

PLAN S (Secondary Level)

General Requirements

General Education		Hrs Req
InCo 101	3	
Physical Education	3	
Humanities	8	
Natural Sciences	8	
Social Sciences	8	
Psychology		
Psy 101	5	

Psy 375	5
Elect 8 additional hours*	8
English	
One course in 170 or 180 series	5
Speech Pathology	
HSS 108 or HSS 330	3
Physical Education	
HPER 202	4
HPER 435 or HPER 333 or	
HPER 250	4-5
Mathematics	
Math 120 recommended	5
Audio-Visual	
EdAv 480	4

Requirements in Major

Cognate Areas	
Psy 373 or EdEl 200 or	
HECF 160 or 360	4-5

Secondary Education

Select two of three following courses	
EdSe 250, 351 or 480	7-9

Special Education

EdSp 271	3
EdSp 272	3
EdSp 373	3
EdSp 374	4
EdSp 375	4
EdSp 376	2
EdSp 377	3
EdSp 470	3
EdSp 474	4
Elect two additional courses**	6

Professional Laboratory Experiences

EdPl 360 or 361	2
EdPl 461-462	12
EdPl 465	3
Minor***	20

*Psychology—8 quarter hours, suggested are:

Psy 331	4
Psy 341	5
Psy 404	5
Psy 410	5
Psy 412	5
Psy 415	5
Psy 436	5
Psy 444	5

**Special Education—6 quarter hours; elect from any non-required EdSp course:

EdSp 370, 371, 378, 379, 474, 475, 477.

***Minor Area of Concentration: 20 quarter hours in one or two related areas, within a college, to be selected with guidance of adviser, from any college within the University, outside the College of Education, but including the schools of home economics and physical education. Upon selection of two areas, the hours selected in one area could range from seven to 13 quarter hours with the balance of the 20 hours to be taken in the second area.

****In order for a student on Plan E to shift into the elementary program without undue hardship, it is recommended that the sequence in science, an additional course in English and 27 hours of social studies be taken.

VALIDATION OF ELEMENTARY AND SECONDARY CERTIFICATE

Students not majoring in special education who desire to validate the standard elementary or secondary certificate for teaching educable mentally retarded children in Ohio should complete the following courses and at least 12 quarter hours of student teaching, half of which must be with educable mentally retarded children:

EdSp 271	3
EdSp 272	3
EdSp 373	3
EdSp 374	4
EdSp 376	2
EdSp 377	3
EdSp 474	4

SPECIAL TEACHING AREAS

Students in areas such as physical education, art, music and home economics may take courses in special education which prepare them to teach mentally retarded children and learning disabled children in their area of specialization. These students must complete EdSp 271 and either EdSp 272 or EdSp 474 as well as at least one other course determined by their specific area. Depending upon the area of preparation, these students may be required to complete additional course work and practicum as determined by consultation with their advisers.

TRAINABLE MENTALLY RETARDED CHILDREN

Students who desire to obtain a recommendation for approval by the Ohio Bureau of Mental Retardation to teach trainable mentally retarded children in addition to the requirements of their major should complete 27 quarter hours of specialization including (1) nine quarter hours in psychology including the psychology of exceptional children (EdSp 271 meets their requirements); (2) nine quarter hours in mental retardation including EdSp 272, and (3) nine quarter hours in related areas of child growth and development. The following courses together with at least 12 quarter hours of student teaching, half of which should be with the trainable mentally retarded children, are recommended. Any deviation should be approved by the adviser:

Psy 101	5
Psy 375	5

Education

EdSp 271	3
EdSp 272	3
EdSp 372	3
EdSp 378	2
EdSp 379	3
EdSp 470	3
EdSp 475	4

LEARNING DISABILITIES AND BEHAVIOR DISORDERS

Students majoring in elementary or special education who wish to prepare to teach children with learning disabilities and behavior disorders must take the following courses and a minimum of six quarter hours of student teaching in a learning disabilities classroom.

EdSp 271	3
EdSp 272	3
EdSp 470	3
EdSp 474	4
EdSp 476	4
EdSp 477	3

SPEECH AND HEARING THERAPY

General Education

InCo 115 or 220	3
Physical education	3
Select 27 qtr hrs to include at least one course	27
from each of the following:	
Science and/or mathematics	
Comparative arts and/or philosophy	
Social science	
English	

Psychology:

Psy 101	5
Psy 331	4
Psy 373	5
Psy 433 OR 432	5
Psy 410 OR 451	5

Professional Education

Psy 375	5
EdSp 271 OR Psy 475	3-5
EdSp 474	4
EdPl 360 OR 361	2
HSS 443	4
EdPl 461 AND 462	12
EdPl 465 OR HSS 437	2-3

Requirements in Major

HSS 107-Voice and Artic	2
HSS 108-Intro Spch Disorders	3
HSS 309-Phonetics	3
HSS 310-Lang Devel	5
HSS 313-Resp and Phon Mechs I	3-4

HSS 314-Resp and Phon Mechs II	3-4
HSS 350-Speech Science	3-4
HSS 351-Lab Methods in Sp Sci	3-4
HSS 370-Basic Audiology	3-4
HSS 415-Stuttering	5
HSS 418-Dis of Artic	5
HSS 419-Dis of Voice	4
HSS 422-Diagnostic Proc	3-4
HSS 424-Neuropath of Sp Lang	3-4
HSS 440A, B, C-Soph Practicum	3
HSS 441A, B, C-Jr Practicum	3
HSS 442A-Sr Practicum	2
HSS 371-Auditory Rehab	3-4
HSS 472-Aud Dis Children	3-4
HSS 345-Social Dialects	4
HSS 444-Dis of Language	4
HSS 479-Basic Manual Commun	1

MENTAL RETARDATION EVALUATION UNIT

Established to provide diagnostic, referral and consultive services for counties for southeastern Ohio, the Mental Retardation Evaluation Unit, through demonstration and laboratory experiences, provides students with opportunities to become knowledgeable in the comprehensive diagnosis and educational prognosis areas of special education. The director, clinical coordinator, social worker, special educator, nurses and psychologist of the unit staff are members of the special education faculty of the University.

INSTRUCTIONAL MATERIALS CENTER

The center was established to provide a comprehensive special education instructional materials program for a multi-district area and to provide assistance for a continuing in-service education program with the focus upon instructional materials and methods for special education. The Multi-County Special Education Instructional Materials Center located in the College of Education provides students with opportunities to examine and use instructional materials pertinent to the needs of exceptional children.

STUDENT TEACHING

Successful student teaching represents the culmination of the program of professional preparation; it is a requirement for

the bachelor of science in education degree. No candidate will be considered for the degree, or for recommendation for a teaching certificate, who has not completed, under the supervision of Ohio University, at least 12 quarter hours of observation, participation and student teaching.

Application

It is the responsibility of the student to enter an application for student teaching in the office of the Director of Student Teaching, not later than December 1 preceding the academic year in which a student teaching assignment is desired.

Schedule and Facilities

Students experience the complete range of the teacher's activities in full-time student teaching assignments for one quarter. All students must plan carefully during the first three years of college to provide for a completely free quarter to engage in full-time student teaching. Majors in elementary education will follow a plan providing for student teaching in the last quarter of the junior year or the first or second quarter of the senior year. Majors in secondary academic areas and special fields will normally be assigned to student teaching during one of the quarters of the senior year.

Most of the student teaching assignments will be in off-campus centers. Students must provide their own transportation to their assignments. Privately owned cars will be needed unless the student is assigned to an off-campus center where he may secure housing within walking distance of the school to which he is assigned. Only a few elementary majors can be assigned within walking distance of University housing units in Athens. Personally owned transportation will be needed by virtually all students who request the Athens area. The University assumes no responsibility for the transportation of students.

Prerequisites for Student Teaching

Possible changes in prerequisites due to program revision may be secured in Room 129 McCracken Hall.

General prerequisites

1. Residence: Completion of at least two quarters (30 quarter hours) of residence work.
2. Completion of at least 120 quarter hours of course credit in elementary and 135 quarter hours in secondary education.
3. Completion of field experience, EdPI 360, or by special permission, EdPI 361. These experiences will be completed in September or during the summer prior to the student's junior year and should be arranged with the Director of Student Teaching in the spring quarter of the sophomore year.
4. Scholastic average: The student must have a point-hour ratio of 2.0 (C) on all hours attempted.
5. Admission to junior standing in teacher education at least one full quarter prior to student teaching.

Special prerequisites for student teaching in elementary education:

1. 2.25 cumulative point-hour ratio on all courses completed in the following group: EdEl 200, 310, 330, 340, 350, Art 360, Mus 161 and Psy 375.
2. Completion of all courses required (prior to the designated student teaching quarter) as indicated on the student's planned program outline (A, B or C).
3. For kindergarten certification EdEl 304 and 305 must be completed prior to student teaching.

Special prerequisite for student teaching for special education majors:

1. Completion of Psy 375, EdEl 310, EdSp 271, 272, 373, 374, 375, 376, 470, and if under Plan S (secondary), EdSp 377 and one of the following: EdSe 250 or 351, attaining a cumulative average of 2.25.
2. Speech and hearing therapy majors must complete Psy 375, EdSp 271 or Psy 475, and HSS 443, obtaining a cumulative average of 2.25.

Special prerequisite for student teaching in special education for majors in elementary education:

Completion of EdSp 271, 272, 374, 375 and 376, attaining a cumulative average of 2.25.

Special prerequisites for student teaching in special education for majors in secondary education:

Completion of EdSp 271, 272, 373, 374, 375, 376, 377 and either EdEl 310 or EdSe 420, attaining a cumulative average of 2.25.

Special prerequisites for student teaching in secondary academic and special subjects:

1. Completion of Psy 375, EdSe 250 or H297, EdSe 351 and a methods course in the major teaching field, attaining a cumulative point-hour ratio of 2.25.
2. Students preparing to teach in one field must complete a teacher education major.
3. Completion of a major portion (at least three-fourths) of the work in each of the teaching fields in which the student wishes to be certified. A cumulative point-hour ratio of 2.25 must be attained in the principal teaching field. An average of at least a 2.0 must be achieved in the second teaching field and in each principal component of the comprehensive majors. Transfer students must complete at Ohio University at least one-fourth of the preparation in the principal teaching field.
4. Completion of the general education requirements for certification in accordance with a pattern adopted by the University, consistent with the state teacher certification laws and regulations.

TEACHING CERTIFICATES

A student who plans to teach in Ohio makes application for a teaching certificate at the time of application for graduation.

Applications may be obtained from the Student Personnel Services Office, McCracken Hall, Room 124. The teaching certificate is issued by the State Department of

Education and qualifies the student to teach the subjects indicated on the certificate.

Completion of requirements for graduation and of the professional courses required for certification does not insure that the individual will be recommended for certification. Instructors in various courses, and especially in courses in education and student teaching, will attempt to evaluate a student's fitness for the teaching profession in ways other than observation of academic performance in the classroom. Any reports of limitations which might tend to impair the individual's usefulness as a teacher in the public schools will be made a part of the student's record. When the student makes application for certification this record will be examined and the question of his fitness for teaching will be given further consideration.

Students who are not planning to teach in Ohio should inform themselves concerning the requirements specified by the department of education of the state in which they expect to teach.

Major Field of Specialization

The level of preparation in the major area of specialization must correspond with the outline provided in the preceding pages, even though these requirements in many instances exceed those shown in the state certification regulations.

Second Teaching Field

The level of preparation in the second certifiable field must equal or exceed requirements shown in the regulations of the Division of Certification of the State Department of Education. Curriculum guides for minors are available in the Student Personnel Services Office, McCracken Hall, Room 124. The following minors have been approved:

Biological science
Bookkeeping-basic business
Chemistry
Earth science
Economics
Educational media
English
General science
Geography
Government

Health education
History
Industrial arts
Journalism
Latin
Mathematics
Physics
Physical Education
Social psychology
Sociology and Anthropology
Speech

Any secondary or special field certificates can be validated to teach the following areas:

Data Processing
Driver Education
Reading

Requirements for these validation areas may be obtained in the Student Personnel Services Office, McCracken Hall, Room 124.

OTHER PROGRAMS AND SERVICES

Center for Educational Research and Service

The Center for Educational Research and Service is a division of the College of Education which is designed to make available the resources of the College of Education and of the University to educational workers—teachers, administrators and supervisors, boards of education and the public communities served by Ohio University.

The center's chief functions are: (1) to provide consultant services in such areas as curriculum planning, use of community resources, economic education, guidance programs, school-community relations, reading, testing and supervisory and administrative problems; (2) to conduct school surveys of educational programs and curricula, school building and site needs and organization of school districts; (3) to assist in the solution of professional problems through off-campus and on-campus workshops; (4) to promote conferences on vital problems confronting public education; (5) to publish those studies and reports which will aid in solving educational problems, and to distribute such publications; (6) to assist schools with the organization or revision of programs of reading (especially for exceptional children),

guidance and testing, and (7) to encourage cooperative attack by teachers, administrators, boards of education and the public toward solution of educational needs.

Cooperative Center for Social Science Education

The Cooperative Center for Social Science Education is concerned with program development in the social sciences in elementary, secondary and teacher training levels.

Throughout the year, the cooperative center carries on in-service projects and provides consultant services to the cooperating schools. An international studies advisory council composed of foreign students and university professors works with teacher committees in the schools in the development of cultural and area studies aspects of social science curricula.

The cooperative center is supported by funds from the cooperating schools.

Placement

The Placement and Internship Service, located in Berry Hall, offers assistance to undergraduate and graduate students and alumni of the University who are seeking educational positions.

Information concerning available teaching and administrative positions in the public schools, as well as openings in education, student personnel, home economics, counselor education, industrial arts and physical education departments of colleges and universities of most states and many foreign countries is disseminated through the bureau.

There is a \$2 initial registration fee. An additional \$2 fee is charged for alumni who wish to have the placement services made available to them.

Guidance, Counseling and Student Personnel Services

Personnel programs focusing on the pupil in the elementary and secondary school setting include counseling and guidance services, psychological services, social work services, health services, speech and hearing therapy services, visiting teacher services and the like. Of these services, the training of

the school counselor and the visiting teacher is the main thrust of the program. These kinds of positions require certification by the State Boards of Education in most states. In Ohio, and in most other states, a person aspiring to such position must also be certified to teach and to have had teaching experience for full certification. Besides a teaching field, undergraduates are encouraged to take courses in child psychology, adolescent psychology, personality, learning theory and human growth and development.

Personnel programs focusing on the work of the student in settings beyond the high school level involve such people as the school or university counselor, deans of students, director of housing, admissions officer, financial aids, discipline, sorority-fraternity adviser, foreign student adviser and the like. Undergraduates interested in this field do well to become involved in all aspects of University life, especially the programs built around dormitory life, as well as a heavy concentration of psychology, sociology and education.

The work of this department leads to the master of education degree. Several courses are offered at the undergraduate level to introduce the student to the field of study. The masters programs are described in the Graduate College Bulletin. A more detailed description of the programs may be secured from the Guidance Training Laboratory office in the College of Education. Staff members are available for consultation through the same office.

SCHOOL OF HEALTH, PHYSICAL EDUCATION AND RECREATION

James A. Lavery, *Director*

Two major curricula are offered for prospective teachers—one in physical education and one in health education. By fulfilling the requirements, students who major in the School of Health, Physical Education and Recreation will apply for the bachelor of science in education degree. Also available are minor areas of concentration that compliment the physical education or health education curricula.

A major in physical education prepares men and women students for the following position: teacher of physical education in elementary and secondary schools.

A major in health education prepares men and women students for the following position: teacher of health education and community health service.

General education and professional requirements may be found in the College of Education section of the catalog.

Curriculum sheets may be obtained from the Director of the School of Health, Physical Education and Recreation in Grover Center or from the office of Student Personnel Services in McCracken Hall.

SCHOOL OF HOME ECONOMICS

Beulah E. Sellers, *Director*

Home economics is a diversified field of study. Its unique purpose is to integrate the contributions of the physical, biological and social sciences, philosophy and art into one functional whole for service to families.

The curricula of the School of Home Economics have three specific purposes: general education for personal and family living, specialization in various areas of home economics for professional persons desiring to work directly or indirectly with families and courses planned to enrich the professional preparation of students enrolled in other colleges. The program is both cultural and professional and includes:

- (a) General education in communications, natural science, humanities, social science and art.
- (b) Basic courses in all areas of home economics.
- (c) Professional courses in the major field and related areas.

The School of Home Economics offers 13 professional curricula leading to the BS in home economics degree. In addition, four curricula are offered for those following the two-year terminal program leading to the AA degree. Graduate work leading to either the MS degree or the MEd degree is also offered (see Graduate College Bulletin).

Students have a wide choice in selecting a field of specialization. Professional curricula are offered in the following departments: Child Development and Family Life, Foods and Nutrition, Home Economics Education and Extension, Housing, Furnishings and Management and Textiles and Clothing.

SPECIAL FACILITIES. The program in home economics provides for a variety of activities and experiences. Two nursery schools and two home management houses are maintained on campus. Local high school home economics laboratories are available for student teaching. The School of Home Economics is approved by the State of Ohio Department of Education for training vocational home economics teachers. Off-campus activities have been developed with the Ohio State Cooperative Extension Service, the Health Department, business organizations, department stores, hospital dietary departments and radio-television stations to give the students opportunities for field work in specialized areas. Affiliation with the Merrill-Palmer Institute in Detroit, Mich., provides a unique experience for the junior or senior desiring a quarter of specialized training in all areas related to human development.

ELECTIVE COURSES AND SPECIAL PROGRAMS. The School of Home Economics offers a group of core courses that have no prerequisites and are open to any student in the University. Individual courses may be elected. Special seminars or workshops for international students or for students who want to prepare for international service are offered each quarter.

Degree Requirements for All Home Economics Majors

Candidates for the degree of BS in home economics must fulfill the general requirements of the University, must complete a minimum of 180 hours, plus any physical education in excess of three hours. A point-hour ratio of 2.0 (C) is required on all hours attempted, but includes only final hours and grade points on repeated courses.

Opportunities for the professional home economist have never been greater in the business and professional world. Career opportunities are listed under each professional option. All majors in any field will take

courses listed under requirements in general education, requirements in home economics, basic course requirements in the major field of study and requirements for the option selected in the area of specialization.

Requirements in General Education

Basic courses in general education required of all majors in home economics include:

English	10
InCo (See Professional Curricula)	3-4
Soc 101 or 302	5
Psy 101	5
Econ 101 or 301	4
Science (See Professional Curricula)	9-18
Humanities and/or Literature (See Professional Curricula)	3-15
Art (See Professional Curricula)	3-6
Physical education	3

Requirements in Home Economics

Basic courses in home economics required of all majors include:

HEG 101	2
HEFN 128	3
HECF 160	3
HEHM 180	3
HETC 317	3
HECF 371	3
HEHM 395	3

Requirements for Professional Curricula

CHILD DEVELOPMENT AND FAMILY LIFE

Basic course requirements for all child development and family life majors.

HECF 160 or 360	3
HECF 270 or 470	3
HECF 360	3
HECF 361	3
HEHM 376	4
HECF 462	3-6
Psy 331 (4), Psy 375 (5), Psy 433 (5) or approved substitutes*	14
Soc 360	4
HSS 336	3-4
Zoology	11-15
Approved electives in humanities and/or literature*	3
Art	3-6
InCo 103	4

Education

Select one option for area of specialization:

Option A—Nursery School Teaching: prepares students for teaching in nursery schools, day-care centers, Head Start programs and schools for handicapped children.

HECF 363	4
HEFN 432	3
HECF 463	3
HECF 464	6
EdEl 321	4
Mus 160	3
HPER 227	4
Art 360	3
EdAv 480	4
EDGS 410	3

Approved electives to total 40 hours*

Option B — Child Development-Community Service: prepares student for graduate study in child development or for work with community agencies, children's hospitals, clinics, children's homes and Head Start programs.

HEHM 390	3
HEG 399F	4
HEFN 429 (3) or HEFN 432 (3)	3
Psy 103 (5), Psy 321 (5), Psy 341 (5) or approved substitutes*	15
Math 113	5
EDGS 410	3
Soc 323 (4), SW 391 (4), SW 392 (4), SW 493 (4), SW 490 (4) or approved substitutes*	20

Approved electives to total 40 hours

*Approval from chairman of the department.

Option C — Family Life-Community Service: prepares students for graduate study in family life or for work with youth programs, community recreation, settlement houses and family service agencies.

HEHM 390	3
HECF 471	4
Approved electives in psychology*	20
Approved electives in sociology and anthro- pology*	20

Approved electives to total 40 hours

*Approval from chairman of the department.

FOODS AND NUTRITION

Basic course requirements for all foods and nutri-
tion majors.

HEFN 122	4
HEFN 320	3
HEFN 422	4
Chem 121	5
Math 113	5
Zool 310	4
Humanities and/or Literature	3-5
Art	3-6
InCo 101 or 103	3-4

Select one option for area of specialization:

Option A—Dietetics: qualifies students for American Dietetic Association hospital internships leading to careers as therapeutic and administrative dietitians.

HEFN 428	4
HEFN 430	4
HEFN 434	4
HEFN 435	4
HEFN 436	4
HEFN 437	3
HEHM 396 or HEG 399C	2-4
Chem 122, 123	8
or	
Chem 142, 143	10
Chem 301, 302	6
Acct 101	5
Econ 102 or 302	4
Psy 375	5
Psy 361	5
or	
Mgt 420	4
Zool 101	5
Zool 345	4
Zool 463	4
Approved electives in advanced foods*	3
Electives	16-27

*Approval from chairman of the department.

Option B—Restaurant and Food Service Administration: prepares students for careers in management and supervision in hotels, motels, restaurants, public schools, residence halls and industry. This curriculum meets the requirements of the National Restaurant Association and the American Dietetic Association for apprenticeship or internship training in leading food service establishments.

HETC 315	4
HEFN 434	4
HEFN 435	4
HEFN 436	4
HEFN 437	3
or	
Mgt 420	4
HEFN 438	2-4
HEHM 396 or HEG 399C	2-4
Chem 122, 123	8
Econ 102 or 302	4
Acct 101, 102	9
Mgt 300	4
Mgt 425	4
Jour 250	5
BusL 355	4
Zool 345	4
Mkt 301	4
Approved courses in finance*	4
Approved courses in psychology*	5
Approved electives in business and management*	4-6
Approved electives in foods and nutrition* ..	6
Electives	8-11

*Approval from chairman of the department.

Option C—Commercial Foods and Equipment: prepares students for promotional work with utility companies, food or equipment companies, newspapers and magazines.

HEHM 390	3
HEFN 321	3
HEED 341	3
HEHM 391	4
HEFN 423	4
HEFN 426	3
HEFN 434	4
HEHM 396	4
Chem 122, 123	8
or	
Chem 142, 143	10
Chem 301, 302	6
Jour 441	4
Econ 102 or 302	4
InCo, in addition to core requirement	4
Approved electives in business and/or communications*	18
Electives	17-24

Option D—Foods and Nutrition with Science: prepares students for graduate study or careers in foods or nutrition with a research emphasis.

HEFN 423	4
HEFN 428	4
HEFN 429	3
Approved courses in advanced foods or nutrition*	9-12
HEHM 396 or HEG 399C	2-4
Chem 142, 143	10
Chem 301, 302	6
Chem 303, 304	6
Chem 325	5
Zool 345	4
Zool 363	5
Zool 448	4
Psy 375	5
Electives in computer science, physics or statistics	5-10
Electives	15-30

*Approval from chairman of the department.

HOME ECONOMICS EDUCATION AND EXTENSION

Option A — Home Economics Education: prepares students for teaching home economics in the junior and senior high schools and adult education programs.

Basic course requirements for all home economics education majors.

HETC 110	2
HETC 112	3
HEFN 122	4
HETC 315	4

HEHM 390	3
HEFN 320	3
HEED 340	3
HECF 361	4
HEHM 391	4

Approved electives selected from 300 to 400 level courses in the following areas:*

Child Development and Family Life	3-6
Foods and Nutrition	3-6
Housing, Furnishings and Management ..	3-6
Textiles and Clothing	3-6

*Approval from chairman of the department.

InCo 103	4
Math	2-5
Science (bot and zool or chem)	13-15
Zool 310	4
Fine arts, religion or philosophy including at least 3 hrs of art	9
Literature elec	3-5
EcEd 447	4
Psy 375	5
EdPl 360	2
EdSe 250	4
EdSe 351	5
EdSe 480	3
EdPl 463, 464	12
EdPl 465	3
Electives	6-9

Students may complete requirements for job training certification by taking 45 hours of course work in a specialized area of home economics. Permission must be granted by the home economics education adviser.

Option B — Home Economics Extension: prepares students for positions with the Co-operative Extension Service.

Home Economics extension majors take all basic course requirements listed above for home economics education majors.

Other suggested courses:

HEED 341	3
HEED 441	3
HEED 444	4

HOUSING, FURNISHINGS AND MANAGEMENT

Option A — Home Planning and Decoration: offers basic preparation that qualifies students for initial positions in the field of home furnishings and interior design.

Basic course requirements for all home planning and decoration majors.

HETC 110	2
HETC 112	3

Education

HEHM 180	3
HETC 315	4
HEHM 384	3
HEHM 385	4
HEHM 480	3*
HEHM 481	3
HEHM 482	3
EnvD 301, 302, 303	12
EnvD 151	3
EnvD 401, 402, 403	15
Arch 343, 302, 303	17
Arch 461	3
Approved required courses in business	9
CA 117, 118, 119	9
Econ 102 or 302	4
Jour 250	5
Mkt 301	4
Literature elective	3-5
Science — botany, zoology, physical world or chemistry	9-15
InCo 103	4

Option B — Home Economics in Business: a special option which can be combined with any other area of home economics. Students are prepared for positions with newspapers, women's magazines, radio and television companies, department stores and manufacturing companies.

Basic course requirements will include required courses in area of interest in home economics* plus the following:

HEED 341	3
R-TV 121	4
R-TV 106	4
Jour 231	4
Jour 331	3
Jour 441	4
InCo 103	4
InCo 404	3
InCo 412	3
EdGS 410	3
Approved electives in journalism or radio-television*	6-9

*Approval from chairman of the department.

TEXTILES AND CLOTHING

Basic course requirements for all textiles and clothing majors:

HETC 110	2
HETC 112	3
HETC 308	4
HETC 314	4
HETC 315	4

HEHM 390	3
HETC 402	4
HETC 405	3
HETC 407	5
HETC 419	5
HEHM 396, HEG 399D, or HEG 491E	4
HEHM 480	3
Art 101	5
CA electives	9
Econ 102 or 302	4
Jour 250	5
Mgt 300	4
Chem 121	5

Option A—Fashion Merchandising and Promotion: prepares students for retail managerial and promotional positions such as buyer, fashion coordinator or consultant in department stores, traveling stylist for pattern or fabric manufacturers, for promotional instruction and demonstration, and for fashion writing.

Chem 122, 123	8
Art 102	5
Jour 441	4
CS 150	3
Business and/or communication electives	10
Approved electives in general education*	9
Electives	10

Option B—Textiles Testing and Consumer Services: prepares students for positions in testing laboratories and consumer service departments of large chain companies or fabric manufacturers, and for promotional instruction and product development in related industries such as in laundry, equipment and soap or detergents companies.

Chem 122, 123	8
or	
Chem 142, 143	10
Elective in science or math	5
Electives in physics, math, chem, computer science, equipment, and consumer sciences	17
Approved electives in general education*	8
Electives	10

Option C—Dress Design: prepares students for the position of apparel designer and other technical or managerial positions in clothing manufacture.

Chem 122, 123	8
Art 102	5
Art electives	17
Approved general education electives	9
Electives	10

The College of Engineering and Technology

Richard S. Mayer, *Dean*

Irvin P. Badger, *Assistant Dean*

The College of Engineering and Technology offers curricula leading to the bachelor of science degree in the fields of engineering and industrial technology. These curricula are focused essentially on the engineering profession in which a knowledge of the mathematical and natural sciences gained by study, experience and practice is applied with judgement to develop ways to utilize, economically, the materials and forces of nature for the benefit of mankind and the environment. Graduates from the offered programs will have had both the practical and theoretical training to begin a technical career or to continue on to advanced work at the graduate level. Each degree program has some flexibility through options or electives so that the student may concentrate in areas of his choice.

Engineering curricula accredited by the Engineers' Council for Professional Development are offered in chemical engineering, civil engineering, electrical engineering, industrial and systems engineering and mechanical engineering. A BS degree is offered in industrial technology.

With planning, a student may obtain a degree from the College of Arts and Sciences, the College of Business Administration or the College of Fine Arts as well as a bachelor of science degree in this college upon completion of 15 quarters in the University. (See "Degree, Second Bachelor's.")

Degree Requirements

Candidates for a degree in the College of Engineering and Technology must have earned a minimum of 180 quarter hours and must satisfy all of the curriculum requirements of his particular field as specified on the following pages. In addition he must

have a 2.0 (C) average on all hours attempted and a 2.0 (C) average on all hours attempted in engineering or industrial technology courses. These averages will be computed on final hours and points in repeated courses, if any.

Admission to an Engineering and Technology Program

Upon admission to Ohio University, entering freshmen are enrolled in the University College. These students should read the statements included in the "University College" section of this bulletin. Each student should indicate his choice of curriculum on his official application for admission to the University. This will assure proper guidance in the University College advising program. Course requirements for the freshman year in each of the major departments within the College of Engineering and Technology are nearly identical. Hence, while it is desirable to indicate a specific major field of study at an early point in time, a student seeking a degree in this college could defer his decision on a specific major field of study until the beginning of the sophomore year.

At the end of three quarters of study in the University College, students are advanced to the College of Engineering and Technology. If at that time a student has less than a 2.0 (C) average, this deficiency must be removed in an appropriate length of time.

After completing degree requirements in the College of Engineering and Technology, the student is qualified to seek, by examination, registration as a professional engineer from the Board of Registration for Professional Engineers of the state in which he

intends to practice. It is to the student's advantage to take the examination during the spring or fall quarter closest to the expected time of graduation or as soon after graduation as is possible.

Graduate programs leading to the MS degree are available in all of the engineering programs. In addition graduate work leading to the PhD degree is available in chemical and electrical engineering. These programs are described in detail in bulletins issued by the Graduate College of Ohio University.

Requirements for Continuing in the College

Students enrolled in the College of Engineering and Technology, who maintain averages of 2.0 (C) or better, continue in the program in a normal manner. Averages below 2.0 (C) are the result of deficiency points. The academic records of students who acquire deficiency points in any quarter are reviewed at the end of that quarter by the office of the dean to determine if those students may continue in the program. A student, who finds himself in this situation, should discuss the matter with the dean of the college.

Humanities-Social Science Electives

Each major departmental curriculum includes an extensive program of study in the social sciences and humanities. Lists of courses, which satisfy this requirement, are maintained in each major departmental office and in the office of the dean.

Pass-Fail Option

Students at Ohio University may elect to take some courses by a pass-fail option. A passing grade under this option in a course counts as credit and hours earned for the course, but in no way does the pass grade count in the scholastic average. A failing grade counts as an F and is reflected in the scholastic average. The general rules for determining eligibility to take a course by this option are stated on the pass-fail

application. In the College of Engineering and Technology, the departments of civil engineering, industrial and systems engineering and mechanical engineering apply the rules as stated on the pass-fail application. If a student is majoring in chemical engineering he may not elect to take a required chemical engineering course on a pass-fail basis; a student majoring in industrial technology may not take an industrial technology course above the 200 level on a pass-fail basis, and a student majoring in electrical engineering may not take an electrical engineering course on a pass-fail basis.

BACHELOR OF SCIENCE IN CHEMICAL ENGINEERING

The chemical engineering program is planned so that its graduates are familiar with the techniques used in analyzing and solving engineering problems associated with the chemical and related industries (petroleum, metallurgical, plastics, pollution control, etc.) In addition, the program provides an excellent background for graduate study in engineering, science or business administration.

Study in chemistry, mathematics, physics and communication skills is emphasized. Courses in engineering fundamentals are introduced, followed by intensive work in engineering analysis and design. Emphasis is placed upon the application of principles from many fields of study to the solving of engineering problems. Computer solutions, process control theory, economics and similar topics are stressed. Electives permit the student to pursue his interest in humanities, social sciences and technical areas.

Chemical Engineering

Freshman

Fall

Math 263A Analytic Geom. and Cal.	5
Chem 121 Gen. Chemistry	5
Soc Sci. or Hum.**	

Winter

Math 263B Anal. Geom. and Cal.	5
Chem 142 Gen. Chemistry	5
EG 101 Engr. Graphics*	3
InCo 101 Freshman Speech*	3

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Math 263C Analytic Geom. and Cal.	5
Chem 143 Gen. Chemistry	5
ENT 100*	3
Soc Sci. or Hum.**	

*May be taken in any order.

Sophomore

Fall

Chem 305 Organic Chem.	3
Phys 251 Gen. Physics	5
ChE 200 Intro. Chem Engr.	4
Humanities or Soc. Sci.**	

Winter

Chem 306 Organic Chem.	3
Phys 252 Gen. Physics	5
Chem 303 Organic Chem. Lab.	1
Math 340 Differential Equa.	5
Humanities or Soc. Sci.**	

Spring

Chem 307 Organic Chem.	3
Phys 253 Gen. Physics	5
ChE 331 Prin. of Engr. Matls.	4
CE 220 Statics	4

Junior

Fall

ChE 342 Unit Oper. I.	5
ChE 302 Thermo-Kinetics I	4
Chem 453 Physical Chem.	3
EE 313 Basic Elec. Engr. I	3

Winter

ChE 343 Unit Oper. II	3
ChE 303 Thermo-Kinetics II	4
Chem 454 Physical Chemistry	3
EE 314 Basic Elec. Engr. II	3
ChE 413 Lab I-Digital	1
ChE 418 Matls. Lab.	1

Spring

ChE 344 Unit Oper. III	4
ChE 304 Thermo-Kinetics III	3
Chem 455 Physical Chemistry	3
Chem 456 Physical Chem. Lab.	2
ChE 414 Lab II-Analog	1

Senior

Fall

ChE 443 Design	4
ChE 415 Lab III-Unit Oper.	3
ChE 442 Process Control	4
ChE Elective	3

Winter

ChE 444 Design	3
ChE 416 Lab-VI Unit Oper.	3
ChE 480 Colloquium	1
Technical Elective***	3
Soc. Sci. or Hum.**	

Spring

ChE 417 Lab V-Process Control	2
Technical Elective***	6
Soc. Sci. or Hum.**	

ALSO: **Note that, in general, courses outside the ChE sequence can be taken at anytime, provided that prerequisites have been met. A total of 24 hours must be taken in the areas of social sciences and humanities, with a minimum of nine hours in each area.

***Minimum list available in departmental office. These are courses in the areas of engineering, chemistry, mathematics and physics.

Minimum of 180 hours required for the degree.

BACHELOR OF SCIENCE IN CIVIL ENGINEERING

The civil engineering curriculum is designed to give the student a broad understanding of the basic physical sciences and mathematics. It provides him with a knowledge of civil engineering principles and practice in the areas of (1) engineering materials, including fluids and soils; (2) design of highways and other transportation facilities, including traffic control systems; (3) design and construction of structures of all types, and (4) environmental sanitation with particular emphasis on water supply and wastewater disposal. The curriculum also is designed to enhance the student's understanding of the world and its culture by introducing him to university-level study in humanities and social sciences.

Civil Engineering

Freshman

Chem 121 ..5	Chem 122 ...4	Chem 123 ...4
ENT 100* ..3	EG 101* ...3	InCo 101* ..3
Math 263A ..5	Math 263B ..5	Math 263C ..5
Elective	Elective	Elective

* May be taken during any one of the three terms

Sophomore

EG 1213	CE 3214	Geol 283 ...5
CE 2204	Phys 252 ...5	CE 2224
Phys 2515	ChE 331 ...4	CE 2231
CE 1104	Elective	Phys 253 ...5

Junior

CE 3411	CE 3704	CE 3314
CE 3405	CE 3304	CE 3423
Math 340 ...5	ME 3214	CE 3434
ISE 4053	CE 3114	CE 3614
Elective		

Engineering and Technology

Senior		
CE 4324	CE 4334	Elective
CE 4503	CE 4513	
EE 3133	EE 3143	
Elective	Elective	

Above list shows only courses specifically required for a civil engineering degree. In addition to these, 24 credit hours are required in the humanities and social sciences with no fewer than eight in either field. A list of acceptable electives is available in the civil engineering office.

Also in addition, any three civil engineering courses taken from the list below are required.

Fall quarter: CE 481 Pavem. Des., CE 424 Str. Mtls., CE 452 Wtr. Anal.

Winter quarter: CE 462 Traffic, CE 415 Photogrammetry
Spring quarter: CE 210 Survey, CE 471 Found., CE 434 Struct. Des.

Qualified students may, with the permission of the instructor, substitute certain graduate level courses for the foregoing civil engineering electives.

Minimum of 180 credit hours is required for the degree.

BACHELOR OF SCIENCE IN ELECTRICAL ENGINEERING

Electrical engineering is an extremely diversified field of science and engineering. The curriculum in electrical engineering reflects this with the inclusion of a strong base of science and mathematics as well as general courses in fundamental aspects of electrical engineering. Following these foundation elements, a wide choice of electives in both engineering and science allows preparation for a certain specific area of practice. Alternatively, this elective choice facilitates preparation for further study to the MS or PhD level in electrical engineering.

Electrical Engineering

Freshman		
Math 263A .5	Math 263B .5	Math 263C .5
Chem 121 .5	Chem 122 .4	Chem 123 .4
ENT 100* .3	EG 101* .3	InCo 101* .3
Elective	Elective	Elective

*any order satisfactory

Sophomore		
EE 2103	EE 2113	EE 2123
EE 2203	EE 2213	EE 2223
Phys 251 ...5	Phys 254 ...5	EE 2325
Math 340 ...5	Elective	CE 2204

Junior		
EE 3011	EE 3021	EE 3031
EE 3103	EE 3113	EE 3124
EE 3304	EE 3314	EE 332*2
EE 3404	EE 3414	EE 342*2
Elective	EE 3214	EE 3224
		Phys 316 ...3

*one required

Senior		
EE 401* ..1-3	EE 402* ..1-3	EE 403* ..1-3
Tech.	Tech.	Tech.
Elect.** ..9	Elect.** ..6	Elect.** ..6
Elective	CE 2224	ME 3214
	Elective	Elective

*Minimum of 1 each quarter until a total of 5 has been completed.

**Minimum of 21 hours of 400 level EE technical elective courses. Since these courses require concurrent registration in 400 level laboratory, students may not register for technical electives without satisfactory completion of EE 303 except with the approval of the EE lab committee prior to registration.

It is strongly recommended that the student use the elective portion of the program to satisfy the humanity-social science requirement of eight hours minimum in each area with 25 total hours including InCo 101. In the event InCo 101 is waived, the three hours must be taken in the humanity-social science area. A list of acceptable courses is available in the electrical engineering office.

More elective hours are included in the program than those required in humanities-social sciences. The remaining hours may be used as free electives of the student's choice. A minimum of 180 hours is required for graduation.

BACHELOR OF SCIENCE IN INDUSTRIAL AND SYSTEMS ENGINEERING

Industrial and systems engineering is concerned with the design and analysis of integrated systems of men, equipment and materials. It draws upon knowledge from the mathematical, physical and behavioral sciences which, in conjunction with the principles and methods of engineering analysis and design, is used to predict, to design, to control and to evaluate the performance of complex systems. Although program emphasis is centered around industrial systems, consideration is also given to military, governmental and service systems.

Courses in the first two years of the program are similar to the curricula of other engineering departments, and provide the necessary foundation in basic subjects upon which advanced engineering work depends. The last two years of work provide the professional level material including computer-related instruction, necessary for the interdisciplinary activities that are required of the modern industrial or systems engineer.

Industrial and Systems Engineering

Freshman		
Math 263A ..5	Math 263B ..5	Math 263C ..5
Chem 121 ..5	Chem 122 ..4	Chem 123 ..4
ENT 100 ...3	EG 1013	InCo 101 ...3
Electives*	Electives*	Electives*

Sophomore		
Math 340 ...5	Math 410 ...3	Phys 2535
Phys 2515	Phys 2525	CE 3214
CE 2204	CE 2224	Electives*
ISE 2312	CE 2231	

Junior		
ISE 4053	ISE 4063	ISE 4353
ISE 4303	ISE 4203	BIC 220 or
ChE 3314	ISE 3335	IndT 270 .3
Acct 311 or	EE 3133	ME 3214
Acct 101 ..4	Electives*	EE 3143
Electives*		Electives*

Senior		
ISE 4323	ISE 4403	Electives*
ISE 4333	ISE 4413	
ISE 4483	ISE 4453	
Electives*	Electives*	

*Minimum of 46 hours of electives including 24 hours of humanities and social science electives, nine hours of engineering science electives and computer programming (FORTRAN). See the department office for approved electives.

Minimum of 180 credit hours is required for the degree.

BACHELOR OF SCIENCE IN MECHANICAL ENGINEERING

Mechanical engineering emphasizes machine design and heat engineering. The work of the first two years is general and fundamental and parallels that in the other engineering curricula. The work of the last two years includes courses in theory development and systems analysis and control; in thermodynamics and its application to steam generators, steam engines and turbines, combustion engines and refrigeration and air conditioning. Work is included in other fields of engineering, such as fluid mechanics and electrical engineering. Limited specialization is provided for by elective courses.

Mechanical Engineering

Freshman		
Chem 121 ...5	Chem 122 ...4	Chem 123 ..4
ENT 100 ...3	EG 1013	Elective
Elective	Elective	InCo 101 ...3
Math 263A ..5	Math 263B .5	Math 263C ..5

Sophomore		
CE 2204	CE 3214	CE 2224
EG 1213	Elective	CE 2231
Phys 2515	Phys 2525	Phys 2535
BIC 2203	IndT 117 ...3	Math 340 ...5
ME 4891		

Junior		
EE 3133	EE 3143	ME 3133
EE 3041	EE 3051	ME 3285
ChE 3314	ME 3015	ME 4014
ME 3214	CE 3405	ChE 418 ...1
ME 3221		
Elective		

Senior		
ME 4125	³ ME 424 ...3	³ ME 404 ...4
ME 4034	Econ 301 ...4	Tech
ME 4913	HSS	Elect .5 or 4
¹ Senior	Elective ...6	⁴ Elective6
Lab ..2 or 3	ME Sym ...0	ME Sym ...0
² ME Sym ...0	Phys 316 ...3	

Electives

Econ 301 (or equivalent)	4
In a humanities sequence	9
(English, philosophy, fine arts, language)	
In a social science or economics sequence	9
(history, government, psychology, sociology)	
Free Choice	3

25

Minimum of 180 hours required for the degree (25 hours of humanities and social sciences).

¹To satisfy this requirement one may select: ME 330-Applied Thermodynamics Lab (2); ME 418, 419 and 420-Mechanical Engineering Experimentation (3); or ME 484-Problems in Thermal Machinery (3).

²Attendance at the ME Symposium is required of all ME students during their last three quarters on campus.

³Denotes a choice. Seniors interested in design should enroll in ME 404 while those interested in thermodynamics should enroll in ME 424. Additional technical electives should be taken to meet the 180 hours requirement.

⁴Elective to be selected in consultation with your adviser.

BACHELOR OF SCIENCE IN INDUSTRIAL TECHNOLOGY

This program is designed to prepare personnel for responsibility in production areas of manufacturing industry.

Courses in mathematics, sciences and data processing are included in order to build channels for communication with engineering personnel. Management oriented courses are provided to assist in developing understanding of the industrial environment. Special emphasis is placed upon procurement of technical knowledge related to drafting, electronic and fluid power control, common materials and the techniques available for forming, machining and joining the materials of industry.

Alternate fields of specialization are available according to the selection of restricted electives. An optional plan, featuring industrial work during the college career, is available under the program of cooperative work-study established with several companies.

Industrial Technology

Freshman

IndT 115 ...4	EG 1013	EG 1023
Chem 121 ..5	Chem 122 ..4	Chem 123 ..4
Math 163A .4	Math 163B ..4	ENT 100 ...3
InCo 101 ...3	(263A)	Acct 1015
	Psy 1015	EG 1031

Sophomore

IndT 216 ...4	IndT 250 ...5	IndT 244 ...3
IndT 220 ...3	IndT 270 ...3	IndT 260 ...3
Phys 201 ...4	Phys 202 ...4	Phys 203 ...4
Humanity ...5	Econ 101 ..4	Econ 102 ...4
		Tech. Elect. .3

Junior

IndT 308 ...3	IndT 318 ...3	IndT 301 ...3
IndT 310 ...3	IndT 332 ...5	IndT 333 ...3
IndT 320 ...3	Mgt 3004	BA 3104
Tech. Elect. .3	Tech. Elect. .5	Tech. Elect. .7
Humanity ...4		

Senior

IndT 362 ...3	IndT 390 ...3	Tech. Elect. .2
Tech. Elect. .6	Tech. Elect. .6	SSc or Hum .4
Gen. Elect.	Gen. Elect.	Gen. Elect.

Minimum of 180 hours required for the degree.

TEACHING INDUSTRIAL ARTS

A teaching option is provided under the industrial technology program where the certification requirements are met by substitution of other courses for the entire block of restricted electives. Students interested in this option should declare their intent during the first quarter of their junior year in order that exact requirements for them can be determined.

The College of Fine Arts

Henry H. Lin, *Dean*

Frances B. Inge, *Assistant Dean*

The College of Fine Arts includes the School of Architecture, the School of Art, the School of Dance, the School of Music, the School of Theater, the Department of Comparative Arts and the Program in Film. A broad, cultural education in the fine arts is offered, as well as specialized training in the following areas: architecture; graphic design, art history, art education, ceramics, painting, photography, printmaking, sculpture; applied music, music education, music history and literature, music theory and composition, music therapy; acting, production design, playwriting, general theater, theater education and children's drama.

Ohio University students requesting admission into major programs of the College of Fine Arts are advised to check with the director of the particular program regarding audition, submission of portfolio or other qualifications necessary for final acceptance as a major in the area. In addition to general acceptance for admission to the University, this step is a requirement for transfer students from other colleges and universities.

High school applicants to Ohio University who wish to pursue a degree program in the College of Fine Arts may apply for advanced acceptance into the college. Admission to advanced acceptance is granted only after audition or submission of portfolio. During the student's freshman year, although he will be enrolled in University College, he will be assigned an academic adviser in the College of Fine Arts; he will be given preferred registration in freshman classes in his major, and subject to his level of accomplishment, he may be permitted to pursue an accelerated degree program. At the end of his freshman year, unless he indicates otherwise, advancement into the College of Fine Arts will be automatic.

The School of Architecture grants the bachelor of arts degree upon the completion of a four-year curriculum in architecture.

The bachelor of fine arts degree is granted upon the completion of a program in the School of Art, the School of Dance or the School of Theater. The School of Music grants the bachelor of music degree.

Candidates for most degree programs in the College of Fine Arts must complete a minimum of 180 quarter hours with a total point-hour ratio of at least 2.0 (C). The minimum number of quarter hours for degree programs in architecture and music is higher, varying according to the program involved. For a student with transferred credit, this rule applies to his Ohio University record, exclusive of transferred credits.

The work of each student in the College of Fine Arts and its various schools will be reviewed no less than once a year by his faculty. When appropriate, the student will be notified of the faculty's assessment of his program and use of his talent. In cases of warning or denial of further registration as degree candidate in a specific program, the student will receive a written notice. In the event of denial, he is still free, subject to University regulations, to change to another degree objective offered by the College of Fine Arts. He may, if he prefers, apply for transfer to another academic division of the University, and subject to regulations, continue to register for course work in the College of Fine Arts on an elective basis.

Further, a student with outstanding qualifications may request from his adviser consideration for acceleration beyond regular requirements.

BACHELOR OF FINE ARTS AND BACHELOR OF MUSIC

The bachelor of fine arts and bachelor of music degrees fulfill four functions: to provide the student with specialized training

in one of the fine arts; to provide a firm foundation for professional achievement; to provide a cultural background through a study of the relationship of all the arts; and to prepare the student, as far as possible, to become a responsible member of society. To these ends, the programs have been kept flexible to meet individual needs.

NOTE: For pass-fail option (except for the School of Art), see Pass-Fail Option, p. 239.

SCHOOL OF ARCHITECTURE

Forrest Wilson, *Director*

The School of Architecture offers programs in architecture and regional planning. The latter program is offered only at the graduate level (see the graduate catalog).

The basic objective of the school is to provide for each student a liberal education base and to develop his particular creative abilities to prepare him for the practice of his design profession.

As each of the professions represented in the school shares in the responsibility of man's visual environment, all basic and professional level design courses emphasize the interdisciplinary consideration of the solution of the environmental problems of society.

At the undergraduate level, work in architecture leads to the four-year degree of bachelor of arts in architecture. The first professional architecture degree is the master of architecture, available after six years of study.

Architecture

The particular objective of the total architectural curriculum is to prepare students for the practice of architecture by providing an undergraduate program in professional studies, and a final specialization at the graduate level.

The curriculum is divided into three two-year segments. The first two-year segment introduces the student to a foundation program in mathematics, physical sciences, engineering mechanics, technology of construction, basic principles of architectural design, and humanities. Major emphasis is given to developing an awareness of the physical and visual environment and to promoting the media techniques and processes

required to study and communicate ideas concerning this environment.

The second two-year segment presents intensified professional courses in structures, mechanical equipment, systems engineering and computer science. At the same time, a liberal arts base is continued and broadened through the choice of electives.

Upon completion of the second segment the student may, upon acceptance by the school's graduate committee and the Graduate College, enter the third two-year segment at the graduate-professional level, and begin specialization (see graduate catalog).

Students desiring admission to the degree program in architecture are required to take the Architectural School Aptitude Test before January 1 of the year in which they seek admission. Information concerning this test may be secured from Architectural School Aptitude Testing Service, Princeton, New Jersey 08540. A sufficient background in mathematics to enter directly into the study of calculus is also desirable.

Before final acceptance by the School of Architecture, all applicants will be expected to submit a statement of personal goals and objectives, plus a portfolio. This requirement is in addition to general acceptance for admission to Ohio University. Freshmen successfully admitted into the architectural program will be considered as Advanced Acceptance students. (See page 12.)

The portfolio will be submitted directly to the Undergraduate Committee, School of Architecture. Detailed information concerning submission can be secured by writing the school, Attn: Undergraduate Committee.

Successful work in the school is dependent upon regular participation in studio courses. Unless specific exception has been approved, the student is expected to work in the studio during all regularly scheduled classes and the school reserves the right to reject any design work done outside of the studio. All work done in fulfillment of class requirements becomes the property of the school.

A minimum grade of C is required in design studio courses to insure advancement to the next level studio. If the student falls below the grade of C or if, in the opinion of the faculty, the student does not exhibit sufficient motivation, the school reserves the right to refuse advancement.

Because the design sequences in the

school are continuous from the freshman year, attendance at institutions not offering equivalent programs may not shorten the time required to complete the program of the school.

To qualify for a concentration in industrial or interior design, a student must complete 18 quarter hours in the specified area during the last year of undergraduate studies.

Freshman

Math 263A ...5	Math 263B ...5	Math 263C ...5
EnvD 151 ...3	Phys 201 ...4	Phys 202 ...4
EnvD 301 ...4	EnvD 302 ...4	EnvD 303 ...4
Elective* ...3-5	Elective* ...3-5	Elective* ...3-5

Sophomore

EnvD 251 ...3	EnvD 252 ...3	EnvD 253 ...3
EnvD 401 ...6	EnvD 402 ...6	EnvD 403 ...6
EnvD 461 ...3	EnvD 462 ...3	EnvD 463 ...3
CE 220 ...4	CE 222 ...4	CE 330 ...4

Junior

Arch 301 ...6	Arch 302 ...6	Arch 303 ...6
RegP 371 ...3	Arch 363 ...3	Arch 364 ...3
CE 432 ...4	CE 433 ...4	Arch 463 ...4
Arch 451 ...3	Elective* ...3	Elective* ...3

Senior

Arch 401 ...6	Arch 402 ...6	Arch 403 ...6
Arch 467 ...3	Arch 457 ...3	Arch 458 ...3
CS 253 ...5	Elective* ...6-9	Elective* ...6-9
Elective* ...3-4		

*Electives: Any one year will be a tracked sequence of courses in humanities, social and physical sciences which students enter with permission of adviser.

SCHOOL OF ART

Henry H. Lin, *Director*

The studio foundation program is designed to familiarize students with basic art concepts and the language of form. Materials and methods and the production of art objects are considered secondary to the development of the individual and his involvement in the artistic process.

During the sophomore year studio courses will emphasize particular media relevant to the student's major interest. At this point he will, together with his adviser, determine for himself the course of study he will follow for the remaining two years. Thus the freshman and sophomore years constitute an extensive program and the junior and senior years a more intensive plan.

The BFA degree in the School of Art requires a minimum of 180 quarter hours. The degree is offered in art education with teacher certification, art history, the studio majors of ceramics, painting, photography, printmaking or sculpture, as well as in graphic design.

Majors in the School of Art may take any course pass-fail.

Studio Majors

Freshman

CA 117 ...3	CA 118 ...3	CA 119 ...3
English ...5	English ...5	Art 103 ...5
Art 101 ...5	Art 102 ...5	Electives ...7-9
Electives ...2-5	Electives ...2-5	

Sophomore

AH 311 ...3	AH 312 ...3	AH 313 ...3
Art Major ...3-5	Art Major ...3-5	Art Major ...3-5
Electives ...7-9	Electives ...7-9	Electives ...7-9

Junior

AH ...4	AH ...4	AH ...4
Art Major ...5	Art Major ...5	Art Major ...5
Electives ...6	Electives ...6	Electives ...6

Senior

Art Major ...5	Art Major ...5	Art Major ...5
Electives ...10	Electives ...10	Electives ...10

36 hours minimum in major; 18 hours minimum in AH beyond freshman level.

Art History Majors

Prospective art history majors should contact a member of the art history faculty at registration to assure proper planning to cover requirements.

Freshman

CA 117 ...3	CA 118 ...3	CA 119 ...3
English ...5	English ...5	Art 103 ...5
Art 101 ...5	Art 102 ...5	Electives ...7-9
Electives ...2-5	Electives ...2-5	

Sophomore

AH 311 ...3	AH 312 ...3	AH 313 ...3
Art Course ...3	Art Course ...3	Art Course ...3
Non-Art electives ...9	Non-Art electives ...9	Non-Art electives ...9

(Attainment of a reading knowledge of at least one foreign language should be considered in the selection of electives in the sophomore year.)

Junior

AH Major ..4	AH Major ..4	AH Major ..4
Art Course ..3	Art Course ..3	Art Course ..3
Non-Art electives ..8	Non-Art electives ..8	Non-Art electives ..8

Senior

AH Major ..8	AH Major ..4	AH Major ..4
Art Course ..3	Art Course ..3	Art Course ..3
Electives ...4	Electives ...8	Electives ...8

36 to 45 hours in major beyond CA 119.

Art Education Majors

A student interested in teaching art at the elementary or secondary level follows a sequence of courses leading to the BFA degree in art education with certification. He should select at least 45 quarter hours in studio courses in two-dimensional and three-dimensional art, including a course in graphic communication; 27 quarter hours in art history and/or comparative arts except history of oratory and history of music, and at least ten quarter hours of electives in studio art or art history.

Freshman

CA 1173	CA 1183	CA 1193
English5	Psy 1015	English5
Art 1015	Art 1025	Art 1035
Electives ..2-5	Electives ..2-5	Electives ..2-5

Sophomore

AH 3113	AH 3123	AH 3133
Soc. Sci. ..3-5	Soc. Sci. ..3-5	EdSe 250 ...4
Math2-5	Sci.2-5	Art3
Grt3	Art3	Art3
GfcD4	Psy 3755	Electives ..2-5

Junior

CA/AH ...3-4	CA/AH ...3-4	CA/AH ...3-4
EdPl 360 ...2	Art3	Art 4613
EdSe 351 ...5	Art3	Art3
Art3	Electives6	AH/Art
Art3		Electives 3-4
		Electives ...3

Senior

Art 4623	EdPl 461 ...6	AH/Art
AH/Art	EdPl 463 ...6	Electives 3-4
Electives 3-4	EdPl 465 ...3	AH/Art
Electives ...9		Electives 3-4
		Electives6
		EdSe 480 ...3

Students in art education should check carefully with their advisers, members of the art education faculty, to be certain their programs are correct. See the College of Education section for general and professional requirements for teacher certification.

Graphic Design

The design curriculum provides two options for art majors. The design major, with 45 hours of design majors and design electives, is a directed course of study covering professionally related areas such as printmaking, photography, journalism and communications. Other art majors who wish a concentration in design may earn 36 hours of combined design major and design elective courses.

The freshman curriculum includes introductory courses in art and comparative arts, plus three quarters of English. Electives introduce the student to other academic areas in the University. Sophomore major courses, which are non-sequential, are open to any student with the completed prerequisites of Art 101-103. Emphasis is placed on tools and techniques, methods and materials, color and design, space and form and other visual media.

A portfolio review is required for acceptance into junior design major courses. Specific course work for the junior and senior years is determined through extensive counseling. Major courses are supported by specialized design elective courses, divided into three categories: two-dimensional—including typography, illustration and publications; three-dimensional—such as packaging and exhibition; and media—covering aspects of light, time, sound and movement.

Junior major courses introduce professional applications, such as problem-solving methodology; and client-designer relationships. Senior major courses are individually oriented, with provision for independent study. The curriculum concludes with preparation of a professional portfolio and senior design exhibition.

Freshman

CA 1173	CA 1183	CA 1193
Art 1015	Art 1025	Art 1035
English5	English5	English5
Electives ..2-5	Electives ..2-5	Electives ..2-5

Sophomore

AH3-4	AH3-4	AH3-4
Des Maj ..3-5	Des Maj ..3-5	Des Maj ..3-5
Electives ..7-9	Electives ..7-9	Electives ..7-9

Junior

Des Maj5	Des Maj5	Des Maj5
Des Elec3	Des Elec3	Des Elec3
Electives ..7-9	Electives ..7-9	Electives ..7-9

Senior

Des Maj5	Des Maj5	Des Maj5
Des Elec3	Des Elec3	Des Elec3
Electives ..7-9	Electives ..7-9	Electives ..7-9

Photography Majors

Candidates for the BFA degree electing photography as a major follow the regular sequence of photography courses during their freshman and sophomore years and advanced photographic courses during the junior and senior years.

A planned course of study should include courses in comparative arts and art history, design and drawing for technical information contributing directly to the major interest. From the general education field, courses should be chosen to fit individual needs.

Acceptance into Phot 205 is based upon evaluation of a portfolio of the applicant's photographs. All students must submit a portfolio prior to admission to the course.

Prospective photography majors should contact a member of the photography faculty to assure proper planning to cover requirements for graduation.

Freshman

CA 1173	CA 1183	CA 1193
Phot 1013	Art 1025	Art 1035
Art 1015	English5	Electives ..7-9
English5	Electives ..2-4	

Sophomore

AH 3374	AH 3384	AH 3394
Phot 2055	Phot 2065	Phot 2075
Electives6	Electives6	Electives6

Junior

Phot Major .5	Phot Major .5	Phot Major .5
AH 3113	AH 3123	AH 3133
Electives ..7-9	Electives ..7-9	Electives ..7-9

Senior

Phot Major .5	Phot Major .5	Phot Major .5
Electives ...10	Electives ...10	Electives ...10

30 hours minimum in the major beyond 207. 18 hours minimum in AH beyond freshman level.

SCHOOL OF DANCE

Shirley Wimmer, *Director*

The School of Dance offers an undergraduate major program leading to a bachelor of fine arts degree, which includes work in performance, choreography, the history and ethnology of dance education. There are opportunities for production and experimentation with the Ohio University Dance Company, which tours the surrounding region. Additional experience is gained from workshops and programs interrelated with the other schools in the College of Fine Arts. Visiting artists are in residence during the year and choreograph works for student performances.

There is a growing demand for qualified graduates of dance major curricula to teach at all educational levels. Within the school, majors are encouraged to gain practical teaching experience by assisting in class instruction. The curriculum provides a foundation upon which the student may build a career as a performer, choreographer, scholar or teacher; it also prepares him for advanced professional studies.

Major in Dance—Suggested Plan

Freshman

Danc 101-102-103	15
Danc 111	2
Zool 101	5
Eng	15
ThAr	9

Sophomore

Danc 201-202-203	15
Danc 212	2
Danc 250-255	4
Zool 301	6
ThAr 215	3
Electives*	15

Junior

Danc 301-302-303	15
Danc 351, 352 or 353	4
Danc 480	2
HPER 329	4
Electives*	20

Senior

Danc 401-402-403	15
Danc 441-442-443	6
Danc 240	3
Danc 471	4
Electives*	17

ELECTIVES* will be chosen from the following fields: anthropology, history, language other than English, philosophy, psychology, art studio, art history, comparative arts, film, music performance, music history, theater history.

SCHOOL OF MUSIC

Clyde Thompson, *Director*

The curricula of the School of Music are designed to prepare students for careers in teaching, music therapy or performance. The School of Music makes provision for individual study in all branches of vocal and instrumental music and offers a wide range of courses in the fields of theory or composition, music history and literature, music education and music therapy. Opportunities are provided for individual participation in student recitals as well as for performing experience in the various organizations, such as the University Chorus, the University orchestras, the bands, Opera Workshop, Jazz Ensemble, the glee clubs, as well as many small chamber ensembles.

Students who specialize in music education may elect either an instrumental or a vocal emphasis. Upon completion of the requirements of the music education program, which includes the requirements of the State Board of Education, the student receives the Ohio Special Certificate for teaching music.

Students in the College of Arts and Sciences may major in one of two areas — music history and literature or music theory. The associate director of the School of Music should be consulted as the adviser of the curriculum.

All new students intending to major in music, both freshmen and transfer students, are expected to audition on their principal instrument or voice as part of the admission process. An appointment for an audition and information concerning proficiency requirements may be secured by contacting the

director of the School of Music. Those students who are accepted but do not meet the required level of proficiency in their principal instrument may be placed in small classes with students of comparable ability until the required level of proficiency is reached.

A music theory placement examination is required of all new students. This examination is given each day during precollege counseling and on registration day at the beginning of each quarter. Specific times and locations for this examination may be obtained from the School of Music office.

The Ohio University School of Music is a member of the National Association of Schools of Music. The requirements for entrance and for graduation as set forth in this Ohio University Bulletin are in accordance with the standards set up by the association.

The following course plans, culminating in the bachelor of music degree, outline a practical sequence of required courses which should be of assistance to the student in planning his course of study. Each student in the School of Music will elect an appropriate performing group consistent with his major each quarter that he is in residence.

Major in Piano

Freshman

Elective ...4-5	Elective ...4-5	Elective ...4-5
Humanities	Humanities	Humanities
elective ..3	elective ..3	elective ..3
Mus 1013	Mus 1023	Mus 1033
Mus 3414	Mus 3414	Mus 3414
Perf group ..1	Perf group ..1	Perf group ..1
Mus 900	Mus 900	Mus 900

Sophomore

Mus 2013	Mus 2023	Mus 2033
Mus 2043	Mus 2053	Mus 2063
Mus 3213	Mus 3223	Mus 3233
Mus 3415	Mus 3415	Mus 3415
Perf group ..1	Perf group ..1	Perf group ..1
Mus 900	Mus 900	Mus 900

Junior

Mus 4511	Mus 4511	Mus 4511
Theory Elec .2	Theory Elec .2	Theory Elec .2
Mus 3415	Mus 3415	Mus 3415
Elective3	Elective3	Elective3
Perf group ..1	Perf group ..1	Perf group ..1
Mus 900	Mus 900	Mus 900
Mus 421* ..3	Mus 421* ..3	Mus 421* ..3
		Recital0

Senior

Mus 4522	Mus 4532	Mus 4542
Mus 3416	Mus 3416	Mus 3416
Elective6	Elective6	Elective6
Perf group .1	Perf group .1	Perf group .1
Mus 900	Mus 900	Mus 900
		Recital0

*May be taken in the junior or senior year, and should include 421B and 421C.

Major in Voice

Freshman

Ital 1114	Ital 1124	Ital 1134
InCo 1013	Elective3	Elective3
Mus 1013	Mus 1023	Mus 1033
Mus 3404	Mus 3404	Mus 3404
Mus 341 or	Mus 341 or	Mus 341 or
Mus 141 .1	Mus 142 .1	Mus 143 .1
Perf group .1	Perf group .1	Perf group .1
Mus 900	Mus 900	Mus 900

Sophomore

Mus 2013	Mus 2023	Mus 2033
Mus 2043	Mus 2053	Mus 2063
Mus 3404	Mus 3404	Mus 3404
Mus 341 or	Mus 341 or	Mus 341 or
Mus 241 .1	Mus 242 .1	Mus 243 .1
Perf group .1	Perf group .1	Perf group .1
Mus 900	Mus 900	Mus 900
Ger 1114	Ger 1124	Ger 1134

Junior

Mus 3213	Mus 3223	Mus 3233
Fr 1114	Fr 1124	Fr 1134
Theory	Theory	Theory
elective .2-3	elective .2-3	elective .2-3
Mus 3404	Mus 3404	Mus 3404
Perf group .1-3	Perf group .1-3	Perf group .1-3
Mus 900	Mus 900	Mus 900
		Recital0

Senior

Mus 421A .3	Mus 421F .3	Elective8
Mus 3404	Mus 3404	Mus 3404
Mus elective .3	Mus elective .3	Mus elective .3
Perf group .1-3	Perf group .1-3	Perf group .1-3
Mus 900	Mus 900	Mus 900
Elective5	Elective5	Recital0

Demonstration of piano proficiency is required.

*May be taken in junior or senior year; should include 421A and 421F.

Major in Orchestral Instruments

Strings, Woodwinds, Brass or Percussion

Freshman

Elective4	Elective4	Elective4
Humanities	Humanities	Humanities
elective ...3	elective ...3	elective ...3

Mus 1013	Mus 1023	Mus 1033
Maj instr ...2	Maj instr ...2	Maj instr ...2
Mus 341 or	Mus 341 or	Mus 341 or
Mus 141 .1	Mus 142 .1	Mus 143 .1
Band/orch .1	Band/orch .1	Band/orch .1
Mus 900	Mus 900	Mus 900
Chamber	Chamber	Chamber
music1	music1	music1

Sophomore

Mus 2013	Mus 2023	Mus 2033
Mus 2043	Mus 2053	Mus 2063
Mus 3213	Mus 3223	Mus 3233
Maj instr .5	Maj instr .5	Maj instr .5
Mus 341 or	Mus 341 or	Mus 341 or
Mus 241 .1	Mus 242 .1	Mus 243 .1
Band/orch .1	Band/orch .1	Band/orch .1
Mus 900	Mus 900	Mus 900
Chamber	Chamber	Chamber
music1	music1	music1

Junior

Mus 3013	Mus 3023	Mus 3033
Mus 4553	Mus 4573	Elective3
Mus 4581	Mus 421* .3	Mus 421* .3
Maj instr .5	Maj instr .5	Maj instr .5
Elective2	Band/orch .1	Band/orch .1
Band/orch .1	Mus 900	Mus 900
Mus 900	Chamber	Chamber
Chamber	music1	music1
music1		Recital0

Senior

Mus 4072	Mus 4082	Mus 4092
Maj instr .6	Maj instr .6	Maj instr .6
Mus 4813	Mus	Mus 4592
Elective** .3	304/305 .3	Elective** .3
Band/orch .1	Elective** .3	Band/orch .1
Mus 900	Band/orch .1	Mus 900
Chamber	Mus 900	Chamber
music1	Chamber	music1
	music1	Recital0

Demonstration of piano proficiency is required.

*May be taken in junior or senior year; should include 421C and 421D.

**Suggested electives are: composition, instrumentation, orchestration and conducting.

Major in Organ

Freshman

Eng5	Eng5	Elective5
CA 1173	CA 1183	CA 1193
Mus 1013	Mus 1023	Mus 1033
Mus 3432	Mus 3432	Mus 3432
Mus 3411	Mus 3411	Mus 3411
Perf group .1	Perf group .1	Perf group .1
Mus 900	Mus 900	Mus 900

Sophomore

Mus 2013	Mus 2023	Mus 2033
Mus 2043	Mus 2053	Mus 2063

Fine Arts

Mus 3213	Mus 3223	Mus 3233
Mus 3432	Mus 3432	Mus 3432
Mus 340 or	Mus 340 or	Mus 340 or
Mus 147 ...1	Mus 148 ...1	Mus 149 ...1
Elective3	Elective3	Elective3
Perf group ..1	Perf group ..1	Perf group ..1
Mus 900	Mus 900	Mus 900

Junior

Mus 3013	Mus 3023	Mus 3033
CA3	CA3	CA3
Mus 421* ...3	Mus 421* ...3	Mus 421* ...3
Mus 4553	Mus 4563	Mus 4013
Mus 3434	Mus 3434	Mus 3434
Perf group ..1	Perf group ..1	Perf group ..1
Mus 900	Mus 900	Mus 900

Senior

Mus 3433	Mus 3433	Mus 3433
Mus 4984	Mus 4984	Mus 4984
Elective** ..7	Elective** ..7	Elective** ..7
Perf group ..1	Perf group ..1	Perf group ..1
Mus 900	Mus 900	Mus 900

*May be taken in the junior or senior year and should include 421E.
 **Suggested electives: counterpoint, composition, French, German, philosophy or Bible as literature; 9 qtr hrs of the elective must be in theory.

Major in Theory and Composition

Freshman

Eng5	Eng5	InCo 101 ...3
CA 1173	CA 1183	CA 1193
Mus 1013	Mus 1023	Elective2
Maj instr ...2	Maj instr ...2	Mus 1033
Sec instr ...1	Sec instr ...1	Maj instr ...2
Perf group ..1	Perf group ..1	Sec instr1
Mus 900	Mus 900	Perf group ..1
		Mus 900

Sophomore

Mus 2013	Mus 2023	Mus 2033
Mus 2043	Mus 2053	Mus 2063
Mus 3213	Mus 3223	Mus 3233
Elective3	Elective3	Elective3
Maj instr ...2	Maj instr ...2	Maj instr ...2
Sec instr ...1	Sec instr ...1	Sec instr ...1
Perf group ..1	Perf group ..1	Perf group ..1
Mus 900	Mus 900	Mus 900

Junior

Mus 3013	Mus 3023	Mus 3033
Mus 4072	Mus 4082	Mus 4092
Mus 421* ...3	Mus 421* ...3	Mus 421* ...3
Mus 3102	Mus 3112	Mus 3122
Maj instr ...2	Maj instr ...2	Maj instr ...2
Elective3	Elective3	Elective3
Perf group ..1	Perf group ..1	Perf group ..1
Mus 900	Mus 900	Mus 900

Senior

Mus 3043	Mus 3053	Mus 3063
Mus 4013	Electives9	Electives6
Perf group ..1	Perf group ..1	Perf group ..1
Mus 498** ..2	Mus 498** ..2	Mus 498** ..2
Mus 410*** ..2	Mus 411*** ..2	Mus 412*** ..2
Electives6	Mus 900	Mus 900
Mus 900		

Demonstration of piano proficiency is required.

*May be taken in junior or senior year.
 **Required of theory majors. The senior project will be subject to an oral review by the Theory Department.
 ***Required of composition majors.

Major in Music History and Literature

Freshman

Eng5	Eng5	InCo 101 ...3
CA 1173	CA 1183	CA 1193
Mus 1013	Mus 1023	Mus 1033
Maj instr ...2	Maj instr ...2	Maj instr ...2
Sec instr ...1	Sec instr ...1	Sec instr ...1
Perf group ..1	Perf group ..1	Perf group ..1
Mus 900	Mus 900	Mus 900

Sophomore

Mus 2013	Mus 2023	Mus 2033
Mus 2043	Mus 2053	Mus 2063
Mus 3213	Mus 3223	Mus 3233
Elective3	Elective3	Elective3
Maj instr ...2	Maj instr ...2	Maj instr ...2
Sec instr ...1	Sec instr ...1	Sec instr ...1
Perf group ..1	Perf group ..1	Perf group ..1
Mus 900	Mus 900	Mus 900

Junior

Mus 3013	Mus 3023	Mus 3033
Fr/Ger4	Fr/Ger4	Fr/Ger4
Mus 4213	Mus 4213	Mus 4213
Maj instr ...2	Maj instr ...2	Maj instr ...2
Hist 1013	Hist 1023	Hist 1033
Perf group ..1	Perf group ..1	Perf group ..1
Mus 900	Mus 900	Mus 900

Senior

Mus 4213	Mus 4213	Mus 4213
Fr/Ger4	Fr/Ger4	Fr/Ger4
Perf group ..1	Perf group ..1	Perf group ..1
Mus 900	Mus 900	Mus 900
Elective8	Elective8	Elective8

Demonstration of piano proficiency is required.

Major in Music Education With Vocal Emphasis

Freshman

Mus 1013	Mus 1023	Mus 1033
App-Prin ...2	App-Prin ...2	App-Prin ...2

App-Sec1	App-Sec1	App-Sec1
Perf Group ..1	Perf Group ..1	Perf Group ..1
PL 900	PL 900	PL 900
Eng/Lan ...4-5	Eng/Lan ...4-5	Psy 1015
Soc Sci ...4-5	HPER1	HPER1
HPER1	Elective ...4-5	InCo 103 ...4

Sophomore

Mus 2013	Mus 2023	Mus 2033
Mus 2043	Mus 2053	Mus 2063
Mus 3213	Mus 3223	Mus 3233
App-Prin ...2	App-Prin ...2	App-Prin ...2
App-Sec1	App-Sec1	App-Sec1
Perf Group ..1	Perf Group ..1	Perf Group ..1
PL 900	PL 900	PL 900
Psy 3755	EdSe 250 ...4	Elective ...3-5

Junior

Mus 4553	Mus 4563	Mus 3653
Mus 3663	Mus 3643	EdSe 351 ...5
EdPl 360 ...2	Mus 2632	App-Prin ...2
App-Prin ...2	App-Prin ...2	Perf Group ..1
Perf Group ..1	Perf Group ..1	PL 900
PL 900	PL 900	Math or Sci .5
Elective ...4-5	Sci or Math .5	

Senior

Mus 3043	Mus 4683	EdPl 461 ...6
App-Prin ...2	App-Prin ...2	EdPl 463 ...6
Perf Group ..1	Perf Group ..1	EdPl 465 ...3
PL 900	PL 900	
Mus 4013	EdSe 480 ...3	
Mus 2612	Mus 2612	
Mus 2632	Mus 2632	
Elective ...3-5	Elective ...3-5	

Demonstration of piano proficiency is required. See School of Music Student Handbook for requirements.

Ohio certification requires particular *minimums* in stated areas of general education. Though these minimums are included in the suggested plan, other requirements in general education are not included here. It will be necessary to consult a music education counselor in order to assure completion of all certification requirements.

Major in Music Education With Instrumental Emphasis

Freshman

Mus 1013	Mus 1023	Mus 1033
App-Prin ...2	App-Prin ...2	App-Prin ...2
App-Sec1	App-Sec1	App-Sec1
Perf Group ..1	Perf Group ..1	Perf Group ..1
PL 900	PL 900	PL 900
HPER1	HPER1	HPER1
Eng/Lan ...4-5	Eng/Lan ...4-5	Psy 1015
Soc Sci ...4-5	Elective ...4-5	InCo 103 ...4

Sophomore

Mus 2013	Mus 2023	Mus 2033
Mus 2043	Mus 2053	Mus 2063
App-Prin ...2	App-Prin ...2	App-Prin ...2
App-Sec1	App-Sec1	App-Sec1
Perf Group ..1	Perf Group ..1	Perf Group ..1
PL 900	PL 900	PL 900
Mus 3213	Mus 3223	Mus 3233
Psy 3755	EdSe 250 ...4	Mus 2632

Junior

Mus 4553	Mus 4573	EdSe 351 ...5
App-Prin ...2	App-Prin ...2	App-Prin ...2
Perf Group ..1	Perf Group ..1	Perf Group ..1
PL 900	PL 900	PL 900
EdPl 360 ...2	Mus 3643	Mus 2612
Mus 2632	Mus 2632	Mus 2632
Mus 1471	Mus 1481	Mus 1491
Mus 2611	Mus 2611	Elective ...4-5
Elective ...4-5	Elective ...4-5	

Senior

Mus 3043	Mus 4683	EdPl 461 ...6
App-Prin ...2	App-Prin ...2	EdPl 463 ...6
Perf Group ..1	Perf Group ..1	EdPl 465 ...3
PL 900	PL 900	
Mus 4013	EdSe 480 ...3	
Mus 2632	Mus 2632	
Science or	Math or	
Math ...4-5	Science .4-5	

Demonstration of piano proficiency is required. See School of Music Student Handbook for requirements.

Ohio certification requires particular *minimums* in stated areas of general education. Though these minimums are included in the suggested plan, other requirements in general education are not included here. It will be necessary to consult a music education counselor in order to assure completion of all certification requirements.

Major in Music Therapy

The music therapy curriculum is designed to meet the degree requirements of the College of Fine Arts and the National Association for Music Therapy.

In addition to the course work, the student must complete Mus 480, Clinical Experience II (six-month internship) at an approved hospital for the training of music therapists. He then is eligible for listing with NAMT as a Registered Music Therapist (RMT).

Freshman

Mus 1013	Mus 1023	Mus 1033
Bot or	Zool 1035	Mus 2813
Zool 101 ..5	Eng5	Eng5

InCo 101/103	Maj instr ...2	Maj instr ...2
205/334 3-4	Sec instr1	Sec instr1
Maj instr. ...2	Perf group ..1	Perf group ..1
Sec instr1	Mus 900	Mus 900
Perf group ..1	HPER1	HPER1
Mus 900		
HPER1		

Sophomore

Mus 2013	Mus 2023	Mus 2033
Mus 2043	Mus 2053	Mus 2063
Psy 1015	Psy 3755	Soc 1015
Mus 2612	Maj instr ...2	Maj instr ...2
Maj instr ...2	Sec instr1	Sec instr1
Perf group ..1	Perf group ..1	Perf group ..1
Perf group ..1	Mus 900	Mus 900
Mus 900		

Junior

Mus 3813	Mus 3823	Mus 3833
Mus 4553	Electives ..8-9	Mus 2632
Mus 3213	Mus 3223	Mus 3233
Psy 4755	Maj instr ...1	Psy 4325
Maj instr ...1	Perf group ..1	Maj instr ...1
Perf group ..1	Mus 900	Perf group ..1
Mus 900		Mus 900

Senior

Mus 3043	Mus 481 ...3	Mus 4823
Soc elec-	Mus 4683	Soc elec-
tive3-4	EdSp 271/	tive3-4
Mus 3663	2723	Elective3
Mus 2632	Mus 2632	Mus 2632
Maj instr ...1	Maj instr ...1	Maj instr ...1
Perf group ..1	Perf group ..1	Perf group ..1
Hum Elec ...3	Hum Elec ...3	Hum Elec ...3
Mus 900	Mus 900	Mus 900

Demonstration of piano proficiency is required.

All students will take additionally Mus 380 (1 hour before the junior year).

SCHOOL OF THEATER

Alvin S. Kaufman, *Director*

The School of Theater provides a full range of courses in historical, critical, interpretive, creative and technical aspects of drama and theater arts. Six undergraduate majors are offered: a general theater major for students wishing a broad education, theater education for secondary school teacher trainees, and intensive professional programs in acting, children's drama, playwriting and production design.

Students in theater are required to take part in the production activities of the University Theater in supplementation and extension of classroom experiences. In the summer, additional opportunities are available with the Ohio Valley Summer Theater, a joint community-University organization, and the Monomoy Theater sponsored by the University at Chatham, Massachusetts, on Cape Cod.

Excellence in scholarship and performance is recognized by a number of annual awards, such as the Irma E. Voigt memorial award of Sigma Kappa to a senior girl for outstanding achievement in theater, and the University Theater awards given for superior contributions in both acting and production.

A complete list of undergraduate courses offered by the School of Theater is listed in the appropriate alphabetical location at the rear of this bulletin. Certain theater arts courses are offered in *even* or *odd* academic years. An *even* academic year starts in a year with an even number. For example, the academic year 1972-73 is an *even* academic year.

Majors in the School of Theater

General theater, theater education and the various professional majors follow approximately the same program during the first two years. Not later than the end of the sophomore year, the student must indicate his intended major sequence and petition through his adviser for admission to that specialized program. The faculty will rule on the petition and may, if desired, request audition or other demonstration of the student's potential in the chosen area.

All majors are expected to achieve basic proficiency in production techniques and skills. Additionally they are required to demonstrate satisfactory mastery of fundamentals of vocal and physical action consistent with their career goals and objectives.

Students intending to major in the School of Theater should enroll for ThAr 115A,B,C, 116A,B,C and 130A,B,C during the freshman year. Additionally they should take one course selected from Eng 177, 178, 179, 187, 188, 189 and begin one or more

sequences necessary to satisfy the general education requirement. This specifies not fewer than eight quarter hours in each of four of the following five groups:

Group One — Modern language, philosophy, great books, English (beyond basic requirement).

Group Two — Physics, chemistry, geology, mathematics, physical science, zoology, botany, astronomy.

Group Three—Sociology, anthropology, economics, geography, government, history, psychology.

Group Four — Applied music; dance theory, practice and technique; art (practice and technique of drawing, painting, motion pictures, sculpture, photography, etc.).

Group Five — Historical and theoretical courses in motion picture, dance, art, music, architecture, photography, comparative arts; interpersonal communication; radio-television; journalism; hearing and speech sciences.

Academic credit is required of all theater majors in conjunction with the School of Theater production program which functions as a laboratory application of classroom theory. This credit must consist of at least one hour in ThAr 434 (Practicum in Production Design) and one hour in ThAr 405 (Practicum in Management), 415 (Practicum in Acting) or 465 (Practicum in Directing). Each theater major must register for at least two practicums in each year in residence on the Athens campus, but not more than 18 hours of practicum credit will count toward graduation. Practicum hours of credit will depend on the scope of the responsibility requested by the student and authorized by the faculty supervisor on the basis of the following scale:

- 4 cr. — Faculty supervised direction, design or a "super-role," etc.
- 3 cr. — Stage manager, assistant director, major roles, etc.
- 2 cr. — Supporting roles, crew heads, etc.
- 1 cr. — Minor roles, crews, etc.

Students relocating from branch campuses, transferring from other institutions or wishing to enter a major program at the advanced undergraduate level must make arrangements with the School of Theater for audition, interview, submission of portfolio or other appropriate screening to determine eligibility for the desired sequence.

Once admitted to the specialized program, each student will be observed and advised by the staff, and his progress will be formally reviewed at periodic intervals. At the end of any quarter the student may be recommended for transfer to another major sequence, required to modify his program or denied further enrollment as a degree candidate in the School of Theater.

Basic Requirements for All Theater Majors

ThAr 115A,B,C: Voice for Stage	6
ThAr 116A,B,C: Body Training	6
ThAr 130A,B,C: Technical Production	9
ThAr 215: Principles of Acting	3
ThAr (or InCo) 220: Oral Interpretation...	3
ThAr 337: Basic Makeup	1
ThAr 370, 371, 372: Theater History	9
ThAr 460: Directing I	3
ThAr 470 to 477: (two history courses)	8

Specialized Program Requirements

Beyond the broad requirements listed above, each student must take the following additional courses for the specified major.

General Theater

ThAr 315: Intermediate Acting I	3
ThAr 461: Directing II	3
Theater arts electives above 300	24
Total advanced theater arts credits	30

Acting

ThAr 311: Stage Speech (3 qtrs)	6
ThAr 312: Stage Movement (3 qtrs)	6
ThAr 315: Intermediate Acting I	3
ThAr 316: Intermediate Acting II	3
ThAr 310A, B, C: Acting Studio	24
ThAr 410A, B, C: Adv. Acting Studio	24
Total advanced theater arts credits	66

Children's Drama

ThAr 340: Dram. Lit. for Children	3
ThAr 440: Children's Theater	3
ThAr 441: Creative Dramatics	3
ThAr 541: Pract. Creative Dramatics	4
ThAr 525: Pract. School Theater	1
Theater arts and related electives	46
Total advanced credits	60

Playwriting

ThAr 315: Intermediate Acting I	3
ThAr 350: Playwriting	5

Fine Arts

ThAr 450: Adv. Playwriting	5
ThAr 451: Playwr. Workshop (3 qtrs)	9
ThAr 575: Dram. Criticism I	4
ThAr 576: Dram. Criticism II	4
Advanced theater arts and creative writing credits	30*

Total advanced credits 60

*Six credits in creative writing courses outside theater

Production Design

ThAr 330A, B, C: Stagecraft	9
ThAr 332: Theatrical Rendering	3
ThAr 333: Basic Theater Design	4
ThAr 430: Adv. Stagecraft	4
ThAr 431: Theory of Lighting	4
ThAr 432: Props and Spec. Effects	4
ThAr 433: Scene Design	4
ThAr 435: History of Costume	4
ThAr 436: Costume Design	4
Theater arts production design electives	20
Total advanced theater arts credits	60

Theater Education

Students in the College of Fine Arts may secure the Ohio Secondary Certificate in General Speech (Option 2—Theater Emphasis) by taking the basic courses required of all theater majors (see previous page)

and the following courses, plus additional work in education and related fields required for teacher certification (see College of Education section for general and professional requirements).

ThAr 330A: Stagecraft: Scenery	3
ThAr 330B: Stagecraft: Lighting	3
ThAr 330C: Stagecraft: Costume	3
ThAr 421-422: Methods of Teaching Theater I and II	5
ThAr 434: Practicum, Production Design	1
ThAr 440: Children's Theater	3
ThAr 441: Creative Dramatics	3
ThAr 461: Directing II	3
ThAr 525: Practicum, School Theater	1
InCo 101: Fundamentals of Speech	3
InCo 103: Public Speaking	4
InCo 215: Argumentation, Debate	3
InCo 334: Introduction to Communication Process	4
InCo 335: Bases of Speech Communication ..	3
R-TV 370 or 441 (Choose 1)	4
Theater electives in area of specialization	6

A student in theater education must check carefully each quarter with his adviser regarding his second teaching field and to be certain his program will lead to the desired goal. It may be necessary to take one or more additional quarters to meet all school, university and state requirements.

Additional Curricula and Programs

CENTER FOR AFRO-AMERICAN STUDIES

Ohio University established the Black Studies Institute in the fall of 1969 as an important part of its effort to alter the trend of higher education as it deals with the black experience in our country's past, present and future. One year later the department expanded and the official name was changed to the Center for Afro-American Studies with the Black Studies Institute being only one of the many programs within the center.

The Black Studies Institute

The Black Studies Institute offers academic programs leading to bachelor's and master's degrees. The programs provide a black perspective on such disciplines as history, psychology, sociology, education and the humanities. Courses of study are designed to meet the individual student's wants and needs. There are few standard course requirements for the degrees; instead, each student, with the guidance of his adviser, plans a course of study which will follow his interests. An extremely flexible independent studies plan permits the student to do research or serve an internship, either on or off the campus. In an effort to move away from traditional letter grading, a portion of the student's progress will be evaluated by using a portfolio system. Because of his increased sensitivity to the black man in contemporary society, and understanding of him, the student — be he black or white — should be prepared upon graduation to be a catalyst for change and betterment in his community.

Undergraduate admission to the institute may be made during the freshman, sophomore, junior or, in exceptional cases, senior year. Because the degree programs are highly individualized, early enrollment is advised. When the application is returned, an interview is set up with an institute staff member

to determine if the student is suited to the academic program.

The Resource Center

The Resource Center provides services to meet the needs of the black community. A comfortable room, supplied with magazines, newspapers and music, offers students a place to lounge in their free hours. The Resource Center also provides academic, occupational, financial and personal counseling, and a free tutoring service. With the help of students, a newspaper, "Afro-American Affairs," is published bimonthly. The center sponsors and organizes weekly social gatherings, workshops, guest speakers and symposiums and music and art performing groups for the entire community.

Except for several full-time staff members to coordinate projects, the Resource Center is largely operated by students, thereby providing a variety of jobs for students who wish to work. The success of the Resource Center, therefore, depends largely upon the enthusiasm of the student-workers.

Requirements for Degree in Afro-American Studies

The bachelor of science degree in Afro-American studies is granted upon completion of the Ohio University graduation requirements of 180 quarter hours, which includes 40-60 hours in black studies. A student must have a minimum point-hour ratio of 2.0 (C) on all hours attempted to qualify for graduation. In addition to the above, the student must successfully complete a minimum of:

- A. Ten hours selected from among the following:
Introduction to Afro-American History

Afro-American Socio-Economic
Development
Introduction to Black Social
Development
The Black Community in the 20th
Century
History and Psychology of
Colonialism

- B. Five hours of independent study. The nature of this study will be determined by the student and his major adviser usually in the junior or senior year.

The heart of our program—what really makes it work—is the advising process. Each student will work closely with a faculty or staff member whose capabilities are related to the student's career choice. Together they will plan a course of study which will include a core of suggested requirements in the Black Studies Institute.

EXTENSION DIVISION

Curtis M. Johnson, *Director*

The Extension Division is the administrative umbrella under which the following offices operate: Continuing Education; Workshops, Conferences and Institutes, and Independent Study Through Correspondence. The purpose of the Extension Division is to provide educational opportunities beyond the regular channels of the University by utilizing the resources of the University in nontraditional ways.

Classes, correspondence courses, workshops and seminars are planned as requests and need indicate. Both credit and noncredit programs are offered. They may or may not lead to a degree, but students seeking admission to a degree program must be admitted through regular Ohio University admission procedures.

Continuing Education

Continuing Education provides credit and noncredit programs in such diverse areas as graduate and undergraduate credit courses, technical and professional programs, community development, liberal adult education

and avocational or recreational programs. Even though the thrust of the continuing education effort is toward meeting the needs of those individuals not already enrolled in the University, some programming is done to meet regular students' needs.

Class sessions are generally held in the evening, although some daytime programs are scheduled. Faculty are especially selected for programs which may be conducted both on campus and off campus at sites such as industrial plants or libraries. The standard University tuition fee is charged for any credit course work; each noncredit program has a fee determined primarily by direct costs; whenever possible, public service activities are conducted at no cost to the participants. Admission to the University College or Graduate College is necessary only for credit courses; otherwise, anyone may usually register for a noncredit course.

Many of the continuing education programs are conducted in cooperation with outside agencies. A credit program in economic education for elementary teachers is conducted at Ashland, Wooster and Mansfield in cooperation with the Center for Business and Economic Education, Ashland College. Each regional campus offers a noncredit real estate program which leads realtors and other enrollees to a Graduate Realtors' Institute (GRI) certificate. Eventually this program may be offered for credit.

Recently a 12-week session for public officials was run in cooperation with the Ohio Department of Urban Affairs and Youngstown State University's Continuing Education staff cosponsored with Ohio University a series of tele-lectures on mental health. Other specialized programs have been organized in the areas of drugs, nursing education, secretarial training, law enforcement, training the mentally retarded and similar topics. In addition, general academic course work is provided for the nursing students at the schools of nursing at Holzer Hospital, Gallipolis and the Ohio Valley Hospital, Steubenville.

A continuing education director is located on the Athens campus and on each of the five regional campuses to explore and meet the needs of those specific communities and surrounding areas. Inquiries are welcome from any local business, industrial or civic group interested in utilizing University expertise or seeking aid from other resources.

Independent Study

... through correspondence

Independent Study Through Correspondence is open to any person whose educational background qualifies him for college-level work. Approximately 130 courses are available with study guides for each course prepared by University faculty members who also grade the lessons submitted by the student. Regular Ohio University credit is given for all courses successfully completed. A bulletin of details of the independent study through correspondence program is available upon request in Tupper Hall, 302. A special bulletin indicating provisions, mainly financial, for men in the armed services who register through a United States Armed Forces Institute program is also available.

... by examination

Course Credit by Examination, now in its third year, is open at present only to students seeking an Ohio University degree and needing to add hours in areas in which they are proficient. Courses, primarily in the lower division of many departments, are offered by University faculty members. Registration, with the approval of the student's academic dean, is made in the course credit by examination office, Tupper Hall, 302, where the student receives the course information on which the three-hour qualifying examination is based and makes arrangements for taking the examination. This is an Ohio University prepared program but similar in nature and purpose to the College Level Examination Program.

Workshops, Conferences and Institutes

The major responsibility of the Workshops, Conferences and Institutes Office is to help the various schools and departments within the University to plan, organize and conduct noncredit programs and credit courses outside the regular University pattern. To accomplish this, the office makes available a coordinator who serves as a consultant to anyone wanting assistance in planning a conference, short course or similar educational venture.

In addition, the office plans and develops its own programs and courses to meet the educational needs of the public at the local, state and national level. The administrative services of the Workshops, Conferences and Institutes Office include budgeting, handling of financial details and providing for promotion, supplies, materials, equipment, dining arrangements and other facilities.

It is also the responsibility of the Workshops, Conferences and Institutes Office to serve as the University's contact with outside organizations and agencies which desire to contract for use of the staff or facilities of the University for educational programs.

Approximately 70 workshops, conferences and institutes are conducted on the Athens campus each year, including such diverse programs as the Saturday Morning Art Workshop for Children and Adults, programs on Acid Mine Drainage and How to Quit Smoking, annual seminars for the Ohio School of Banking and the United Auto Workers, annual journalism and chamber music workshops and an annual Research and Development Management Institute.

THE HONORS COLLEGE

Ellery Golos, *Director*

The Honors College attempts to provide at Ohio University the most flexible and challenging education possible both to the academically gifted and to the creative student. Through especially designed courses, detailed counselling, library privileges, preferred registration, close contact with faculty and distinguished visitors and individualized career planning the Honors College attempts to combine the values of the small college with the resources of a large state university.

Admission

The Honors College limits its enrollment to about five percent of the student body; it must, therefore, make a strong effort to identify those students who can most

profit from its resources. Because no inflexible selection procedure has been developed, admission to the Honors College is kept as flexible as possible.

Any student may apply for admission to the Honors College at the end of his freshman year, at any time during his sophomore or junior year or during the first term of his senior year upon forms available at the Honors College Office. The selection procedure attempts to predict whether or not the applicant will profit from the freedom and the intensity of honors work. Academic performance is considered an important predictor in such an evaluation and a 3.0 accum is used as a minimum standard of such performance. However, faculty recommendations, evidence of unusual abilities in those areas of experience not open to grading procedures and the nature of the applicant's desire to do honors work are even more heavily weighed in the consideration of each application, so that it is possible for a student with less than a 3.0 to be admitted.

Admission requirements differ at each class level; admission of seniors, for example, depends entirely upon the evaluation which the applicant's major department places upon the research project he presents (see below Departmental Honors).

Once admitted, a student may remain in the college as long as he feels it is making a real contribution to his education. The student, however, who follows a degree program whose requirements are so ordered as to make it impossible for him to take any significant part in the Honors College may decide to resign to make room for someone else. If a student's record falls far below his potential for a significant period, or if a review of his work shows that he is obviously not participating in the program, he may be invited to discuss the advisability of not continuing in the college. Each student should be aware that a 3.0 accum and 18 hours in 450s are required for graduation with "Honors in General Studies." (see below)

Freshman Program

Although admission to the Honors College comes at the beginning of the sophomore year, promising freshmen (about five percent of the entering class) are invited to participate in special freshman seminars which satisfy the freshman English requirement. Enrolling 15 students each, these freshman

seminars seek to encourage individual initiative in the pursuit of a number of special problems. In the past, seminars have begun their study with such works as Boulding's *The Twentieth Century* and McLuhan's *Understanding Media* and moved from such general considerations into specific problems of interest to the individual student. More recently, seminars have begun with works such as S. Carmichael's *Black Power*, Faulkner's *Go Down Moses*, Baldwin's *Another Country* and Silberman's *Crisis in Black and White*. Later seminars also study the general problem of separation and alienation in literature throughout history—from Sophocles to Joseph Heller.

Honors sections in mathematics and physics are available to students with appropriately high SAT scores. Usually these students will receive invitations to enroll in the specific honors sections. Further information will be available at the precollege meeting in the summer.

Each student enrolled in these honors courses is given careful consideration as a potential Honors College student.

Sophomore Program

Students admitted to the Honors College as sophomores have the opportunity to enroll in honors sections in certain basic fields (e.g., English, philosophy, history, government, mathematics, economics, education, physics and others). These small, specially designed sections may be used to satisfy the honors student's requirements or allow him to pursue his own interests with greater flexibility and freedom.

Sophomores should not register for 450 courses. If vacancies occur, students may be admitted by change order at registration. Generally speaking, the 297, 298, 299s are considered as prerequisites to the 450s.

Junior-Senior Program

The honors student may follow one of two programs in his junior and senior years. He may elect to carry out extensive research in his area of specialty or he may choose to do his honors work in "general studies." An English major, for instance, might follow the former course (see below Departmental Honors) and graduate with "Honors in English." He might, on the other hand, choose to complete his English major while

taking approximately 18 hours of Honors College 450 (see below Honors in General Studies) to graduate with "Honors in General Studies."

Whether a student chooses to follow the general studies sequence or departmental honors depends, then, upon whether he feels he most wants to carry out sustained independent research or whether he wishes to explore a series of provocative problems outside his major field. Upon occasion, students may combine the two programs.

Departmental Honors

Admission to work in departmental honors is controlled solely by the department concerned. If a student not in the Honors College applies for and is granted admission into a departmental honors program, he is automatically admitted to the Honors College. A student already in the Honors College must also apply to his major department for admission to departmental honors. Work in departmental honors, in other words, must be initiated by the student and must be approved by his department. The Honors College is concerned only that the student register a description of his project and the name of his adviser on the forms available at the college. Most departments require a 3.0 accumulative average for admission to departmental honors.

Students who choose to follow departmental honors elect a total of approximately 15 or 18 hours during their junior and senior years under whichever course number their major department lists its research or independent study course (e.g., Phil 491, Math 491, etc.). A recent ruling of the University Curriculum Council makes it possible for a student to take as many as 15 hours of his independent study in any one quarter, on or off the campus. A typical pattern followed by those who elect this method is to elect three hours of independent study in order to develop an appropriate project and a suitable method of carrying it out. Once a detailed plan for the project has been formulated, the student takes the responsibility of selecting an adviser and convincing him and his department that this research could and should be done in one 15 hour grouping. Most students electing departmental honors, however, spread their 15 credit hours of independent work throughout their junior and senior years in whatever pattern best suits them and their advisers.

Depending on the wishes of the department concerned, the student completes his work in departmental honors by submitting an honors paper or a description of an honors project. Generally, the department conducts an oral examination on the project.

A sampling of titles of honors projects recently completed may give some idea of the scope and variety possible under this plan: *Radiation Simulation for Fallout Shelter Testing*, *Secularism and the American Way of Life*, *The Phenology of an East- and a West-Facing Slope*, *A Comprehensive Analysis of the Freedom of Information Bill*, *The Impact of Electronic Data Processing on Auditing*, *Mexico: Agrarian Reform in the Twentieth Century*, *The Development of Faust and His Relationship to Mephistopheles in Three Stages of Goethe's Faust*, *An Investigation of the Radar Hill Laboratory's Frequency Synthesizer and Some Reactions of Dibenzothiophene*.

The final copy of the paper or project description must be submitted to the Honors College for its approval and subsequent filing in the University library two weeks before the date of graduation. A description of the proper format for the paper is available at the Honors College.

In the event that a paper is not completed, the instructor will give an appropriate grade for the research actually completed. An incompleting project, of course, will not enable the student to graduate from the Honors College.

Students enrolled in departmental honors are eligible to take the honors seminars (see below Honors in General Studies) if there is room available for them.

Honors in General Studies

Because not every honors student wishes to concentrate his studies in one department, the Honors College offers an alternative to the departmental honors program called "Honors in General Studies." Instead of spending 15 to 18 credit hours in independent research during his junior and senior years, the student who chooses general studies elects six Honors College Seminar 450 courses during his final two years. His final transcript, then, may show as many as six different courses offered by different departments and colleges taken under the same course number, Honors College 450 (e.g., Honors College 450: General Systems,

Honors College 450: Figure and Metaphor, etc.).

Each term the Honors College offers a series of seminars, some of which are repeated for several terms, some of which are offered for one term only. Often these seminars grow out of a professor's desire to teach in an area of special challenge which the regular course structure does not make available to him. Many times students define the special problem they wish to investigate and ask the Honors College to help them locate a professor to organize their search. On occasion the college devises a seminar and finds a professor to direct it.

Honors seminars soon to be offered include investigations into such problems as the following: What is the relationship between the ideals of justice and their expression in the American legal system? How does the society in which the artist lives affect the forms he chooses to express himself? What shape, considering its past and its present forms, will the American university take in the future? How can systems analysis help us identify the similarities between the organization of different phenomena? How do the form and content of the mass media affect the individual and society? To what extent can the nature of American society be understood through a reading of popular literature? To what degree can the laws of thermodynamics be apprehended by the non-specialist as an organizing metaphor? What can be learned about the nature of literature and language through studio experience in the fine arts?

Honors seminars are usually elected in subject matter areas outside the student's major field, although this is not mandatory. These special studies may be used to satisfy college or University group requirements: a seminar concentrating on some aspects of art or literature could, for instance, be applied toward a humanities group requirement.

Honors Council

Composed of 12-15 students and four faculty members and meeting at regular intervals, the council advises the director on matters of policy and serves as an agency for innovation of new courses and programs. Suggestions for the improvement of the college or questions concerning existing procedures should generally be introduced through student representatives.

Registration

Each Honors College student works with the academic adviser assigned to him by his major department. To allow for greater flexibility and efficiency, Honors College courses are not listed in the *Schedule of Classes*. Each term, before preregistration, Honors College students will receive a mimeographed class schedule and course descriptions, if they call at Chubb House.

Preferred registration for Honors College students means that their registration materials are processed before those of other students so that they are not closed out of sections.

Graduation

It is the responsibility of each student to make sure that the college is informed a month prior to graduation that he expects to graduate with "Honors in" or "Honors in General Studies." This is necessary so that proper recognition may be given at commencement exercises. Notification of your status should be made on the card accompanying your application for graduation.

INTERNATIONAL STUDIES

J. Norman Parmer, *Assistant Dean of Faculties for International Studies*

Center for International Studies

Ohio University provides students and citizens of the United States and other countries with opportunities to obtain knowledge about peoples and cultures of Africa, Asia and Latin America. This endeavor is founded on the broad belief that an appreciation of different values and institutions increases understanding between peoples, enriches the lives of individuals and assists all in forming opinions on issues which affect the growing world community. Now and in the years ahead, the ideas and actions of African, Asian and Latin American governments and peoples will vitally affect all Americans. The principal means of conducting teaching, research and publication activities on these three world regions is the Center for International Studies, established in 1964.

Undergraduate Certificate

The center offers a Certificate in African, Asian or Latin American Studies to undergraduate students. The certificate is a supplement to the student's major and is intended for those who may be interested in the Peace Corps, international business, international education, graduate study on Africa, Asia or Latin America or simply obtaining a better understanding of the world. While the certificate will not make one an expert on one of these world regions and will not lead automatically to a career in the broad fields suggested above, it will provide the student with a good foundation for additional study. Requirements for the certificate are listed under International Studies in the Course of Instruction section of this catalog.

African Studies

Twenty faculty members teach about 60 courses each year in the African Language and Area Center. Two years each of the Hausa and Swahili languages are offered every year (see Foreign Languages and Literature in the Courses of Instruction section) and may be used to fulfill language requirements in the College of Arts and Sciences and other colleges whose deans approve.

In addition to assisting in the coordination and development of new courses and expansion of library resources, the African Language and Area Center also supports faculty and student research and sponsors an African Publications Series. It provides a forum for lectures by distinguished Africans and specialists on Africa. Similarly, it helps to bring African cultural attractions to the Athens campus. Seminars and colloquia on special subjects are arranged during the year. A film series on Africa is offered.

The African Language and Area Center has been designated a Title VI Center under provisions of the National Defense Education Act since 1965. A brochure describing the center is available on request.

Latin American Studies

Latin American studies have long been an important part of undergraduate work at Ohio University. Currently some 12 faculty members teach about 30 courses each year.

There are extensive offerings in Spanish and Portuguese language and literature as well as courses in economics, art history, government, history, sociology and comparative literature. An interdisciplinary course offers an overview of Latin America. Study Abroad programs in Spain and Mexico are important features of Latin American studies at Ohio University.

Southeast Asia Studies

Thirty faculty members teach about 70 courses each year dealing with Southeast Asia and neighboring Asian regions. These offerings include Indonesian/Malay and Chinese (Mandarin) languages through the advanced level as well as extensive offerings in other disciplines. An interdisciplinary course on Asia is offered for freshmen and sophomores and can be used to satisfy social science requirements. Either Indonesian/Malay or Chinese may be used to meet College of Arts and Sciences language requirements and the language requirements of other colleges whose deans approve. (See linguistics courses).

The program sponsors a Southeast Asia Publication Series and also supports faculty research. A series of lectures is provided throughout the year featuring Asian scholars as well as specialists on Asia. The area program assists in the development of new courses and in the expansion of library resources. Membership in the Library of Congress Acquisition Program for Indonesia, Malaysia and Singapore is increasing; these area acquisitions. One hundred seventy five Asian students are studying at Ohio University. A brochure describing the Southeast Asia Studies Program is available on request.

Principle Courses

Below is a list of the principal courses relevant to international studies in Africa, Asia or Latin America. Please check the complete course descriptions under the various departments.

ART HISTORY

330	The Arts of the Orient
331	Mexican Art
332	African Art
481	Readings

Curricula and Programs

DANCE		441	Government and Politics of Africa
250	Ethnic Dance of Non-Western Cultures	445	Government and Politics of Japan
		446	Government and Politics of China
351-352	Dance Cultures of the World	447A,B	Government and Politics of Southeast Asia
ECONOMICS		461	New States in World Politics
418	Agricultural Development	462	Race and Politics in Southern Africa
420	Economic Development	490	Seminar in Government
421	African Economic Development	498	Problems in Government
422	Chinese Economy		
423	Economy of Latin America		
424	Economics of Southeast Asia		
425	Comparative Economic Systems		
480	International Economics		
EDUCATION, INTERNATIONAL COMPARATIVE		HISTORY	
420	Comparative Cultures and Education	323A	Latin American Survey—Colonial Period
425A	Education and Development in Africa	323B	Latin American Survey—National Period
425B	Education and Development in Asia	325	Inter-American Relations
432	Perspectives in International Education	341A	Africa in Precolonial Times
493	Readings	341B	Africa in Recent Times
ENGLISH LANGUAGE AND LITERATURE		345A	Southeast Asia to 1820
306A,B,C	Studies in Oriental Literature	345B	Southeast Asia: Colonialism to Independence
306C	Literature of Island Southeast Asia	345C	Post-War Southeast Asia: Independence Problems
441	Studies in Comparative Literature	346A	Traditional China to 1800
FINANCE		346B	Modern China
455	International Finance	348A	Traditional Japan
FOREIGN LANGUAGES AND LITERATURES		348B	Modern Japan
African and Asian Languages		422	Latin America in 19th Century
111-2-3	Elementary Chinese, Hausa, Indonesian/Malay and Swahili	423	Studies in Latin American History 1750-1880
211-2-3	Intermediate Chinese, Hausa, Indonesian/Malay and Swahili	426A	Recent Latin America: Argentina, Brazil and Mexico in 20th Century
311-2-3	Advanced Chinese, Hausa, Indonesian/Malay and Swahili	426C	Recent Latin America: Central America and the Island Republics in 20th Century
Geography		427	Studies in Recent Latin American History
345	Southeast Asia I	436A	North Africa in Modern Times
346	Southeast Asia II	436B	North Africa since 1914
350	Geography of Northern Africa	438A	History of East Africa
351	Geography of Sub-Saharan Africa I	440	Seminar in Slave Trade (Two quarters)
352	Geography of Sub-Saharan Africa II	441	Studies in African History
355	Geography of South America	442A	History of South Africa to 1899
356	Geography of Middle America	442B	South Africa in Recent Times
490	Geographic Studies	444A	History of Malaysia
GOVERNMENT		444B	Burma and Thailand in Modern Times
334A,B	Government and Politics of Latin America	444C	History of Vietnam
335	Politics of Developing Areas	444D	Chinese in Southeast Asia
		498	Special Problems
		INTERNATIONAL STUDIES	
		113-4	Africa
		103	Modern Asia

JOURNALISM

- 466 International Communications
- 467 Foreign Correspondence

MANAGEMENT

- 484 International Comparative Management

MARKETING

- 441 International Marketing

MODERN LANGUAGES

Portuguese

- 111-2-3 Basic Spoken Portuguese
- 211-2-3 Intermediate Spoken Portuguese and Reading
- 241 Literature and Interpretation

Spanish

- 111-2-3 Elementary Spanish
- 211-2-3 Intermediate Spanish
- 241 Literature and Interpretation
- 349 Spanish-American Civilization and Culture
- 443-4 Survey of Spanish-American Literature
- 447 Themes from Latin-American Prose
- 448 Contemporary Spanish-American Literature

PHILOSOPHY

- 370 History of Religions: India
- 371 History of Religions: Southeast Asia
- 470 Indian Philosophy
- 471 Buddhistic Philosophy

SOCIOLOGY AND ANTHROPOLOGY

- 371 Ethnology
- 377 Peasant Communities
- 380 The Africans and Their Culture
- 381 Culture Areas of Sub-Saharan Africa
- 385 Cultures in Southeast Asia
- 386 Problems in Southeast Asian Research
- 399 Readings in Anthropology
- 405 Readings in Sociology

Study Abroad Programs and International Summer Employment

In recognition of the interest of many students in expanding their educational experiences, Ohio University has developed several foreign study programs.

Full academic-year programs for undergraduates are conducted in Austria, France and Spain. The University administers summer programs for graduate students as well as undergraduates in Greece, Italy, Malaysia and Mexico.

The courses listed below are to be offered during summer 1972 or academic year 1972-73 (asterisks designate those not yet approved by the University Curriculum Council). The suffix *x* signifies study abroad.

The Office of Study Abroad Programs and International Summer Employment likewise coordinates the German Work Program, in which students of Ohio University and its regional campuses may spend a summer working in West Germany.

Austria

- AH 300x Survey of European Art History (3)
- EdIC 420x Comparative Cultures and Education (1.5)
- Geog 340x Geography of Western Europe (4.5)
- Ger 341x-342x-343x Advanced Conversation and Composition (4.5-4.5-4.5)
- Ger 355x-356x Introduction to German Literature (4.5-4.5)
- Ger 435x Proseminar: German Short Stories since 1945 (4.5)
- Ger 439x Grammatical Structure (4.5)
- Govt 332x Comparative Government: Germany and Austria (4.5)
- Hist 371x History of Central Europe (4.5)
- ML 445x Teaching of Modern Foreign Languages (4.5)
- Mus 120x Introduction to Music Literature (3)

France

- AH 324x French Art of the Middle Ages and Renaissance (3)
- AH 326x Baroque and Rococo Art in France (3)
- AH 328x French Impressionism and Contemporary Art (3)
- Eng 341x Themes in Comparative Literature (3)
- Fr 341x-342x-343x Advanced Conversation and Composition (3-3-3)
- Fr 355x-356x Introduction to French Literature (3-3)

Curricula and Programs

- Fr 437x Applied Phonetics (3)
- Fr 441x Stylistics (3)
- Geog 340x Geography of Western Europe (3)
- Hist 361x History of France I: to 1600 (3)
- Hist 362x History of France II: 1600-1789 (3)
- Hist 363x History of France III: 1789-present (3)
- Mus 120x Introduction to Music Literature (3)
- Phil 491x Contemporary French Thought (3)

Spain

- *Geog 340x Geography of Spain (4)
- *Govt 399x Contemporary Spanish Government and Politics (4)
- *Hist 364x History of Spain I: 1474-1600 (4)
- *Hist 365x History of Spain II: 1600-1700 (4)
- *Hist 366x History of Spain III: 1700-present (4)
- *Mus 120x Introduction to Music Literature (2)
- *Phil 399x Contemporary Spanish Thought (4)
- *Span 341x-342x-344x Advanced Conversation and Composition (4-4-4)
- Span 348x Spanish Civilization and Culture (4)
- Span 355x-356x Introduction to Spanish Literature (4-4)
- Span 435x Proseminar in Spanish Literature (4)
- *Span 437x Spanish Phonetics (4)

Greece

- *CA 485x Classical Art and Architecture (4)
- Hist 470x History of the Byzantine Empire: 324-1453 (3)

Italy

- Art 205x-206x-207x Painting (3-5 credits each)
- Art 305x-306x-307x Painting (3-5 credits each)
- Art 405x-406x-407x Painting (3-5 credits each)

- Art 480x Individual Problems (1-3)
- AH 323x Italian Renaissance Art (4)
- CA 320x Fine Arts in Florence (6)
- Hist 456x The Italian Renaissance (3)

Malaysia

- Geog 345x Geography of Southeast Asia (4)
- *Govt 447x Government and Politics of Southeast Asia (4)
- *Hist 444x History of Malaysia (from 8th Century) (4)

Mexico

- Eng 206x Modern Tradition in Comparative Literature (3)
- Psy 490x Psychology of the Mexican (3)
- Span 111x-112x-113x Elementary Spanish (4-4-4)
- Span 211x-212x-213x Intermediate Spanish (4-4-4)
- Span 341x Advanced Conversation and Composition (4)
- Span 349x Spanish American Civilization and Culture (3)
- Span 437x Applied Phonetics (3)
- Span 441x Stylistics (3)

OHIO PROGRAM OF INTENSIVE ENGLISH (OPIE)

Robert F. Dakin, *Director*

This program provides training in the English language designed to raise the proficiency of the nonnative speaker to a level that enables him to undertake academic study in an American college or university. Ten- and 20-week full-time intensive courses and a ten-week semi-intensive course accommodate students at varying levels of beginning proficiency. After placement through initial proficiency tests, the student receives from two to five hours of daily classroom and language laboratory instruction and practice in oral and written English.

Regular admission to Ohio University makes students eligible for enrollment in this program if necessary. Students planning study at another college or university in the United States may be admitted as special

students for study in the OPIE only. However, this admission is limited to students who can furnish proof of at least provisional admission to another institution.

For further information on fees and enrollment, write to Dr. Robert Dakin, Director, Ohio Program of Intensive English, Gordy Hall, Athens, Ohio 45701.

REGIONAL CAMPUS ADMINISTRATION

Ralph D. Smith, *Dean*

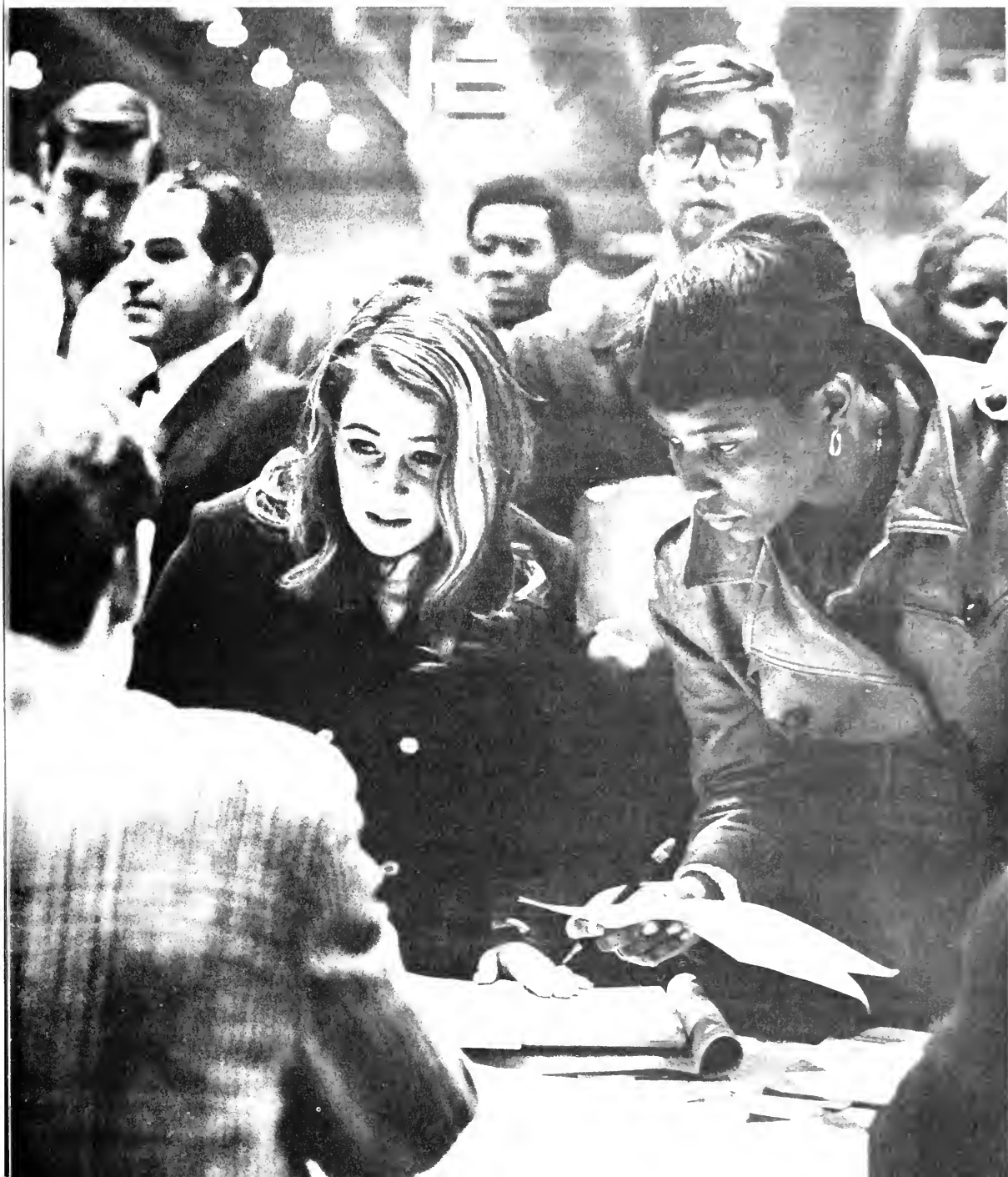
Edward F. Sarno, *Associate Dean*

Ohio University has five campuses other than the Athens campus. They are located in Belmont County, Chillicothe, Lancaster, Portsmouth and Zanesville. An academic center at Ironton also comes under the jurisdiction of the Regional Campus Administration.

The objective of the regional campuses is to serve students at the freshman and sophomore levels. A full two-year curriculum in the arts and sciences, business administration and education is offered, as well as programs in fine arts and engineering. Some regional campus students may choose to earn the associate in arts degree by following the approved two-year program; but the majority of students will move on to the Athens campus for their junior and senior years.

The admission policies for the regional campuses are the same as those of the Athens campus. Ohio high school graduating seniors who can commute from home to one of the regional campuses will be admitted as regular full-time or special part-time students. This decision is made on the basis of the high school transcript, scholastic aptitude test, plus the Ohio high school recommendations. Applicants who cannot commute will be accepted at any of the regional campuses provided they can meet residence status requirements. The regional campuses do not have residence halls, but each has approved outside housing.

Courses of Instruction



Courses of Instruction

CATALOG NUMBERS — The catalog number indicates the student classification for which the course is primarily intended:

- 001-099 Noncredit courses
- 100-299 Undergraduate general program
- 300-499 Undergraduate advanced or specialized program

CREDIT—Credit for a course is indicated by the number or numbers in parentheses following the course title. In a quarter course it may be expressed thus: (3), (1-3) or (2 or 3).

A course with one quarter hour of credit (1) is the equivalent of one recitation or two or more laboratory periods a week throughout a quarter.

In a course carrying variable credit the credit may be expressed (1-4, max 8), indicating that one hour is the minimum and four hours the maximum amount of credit allowed for the course in one quarter. However, a student may enroll in the course any number of times and for any number of credit hours, within the quarter limit, provided the total registration for the course does not exceed eight hours.

ACCOUNTING

The accounting major is designed to equip the student to enter the profession of accountancy at the beginning level in public or industrial accounting or in governmental or nonprofit institutions.

In addition to the BBA degree requirements, a student majoring in accounting must complete 24 hours of accounting courses at the 300-400 level including 303, 304, 305, 310 and two required courses outside the accounting area, BusL 357 and Fin 461.

101 Managerial Accounting (4)

Prereq: Econ 101. Uses of accounting information for making managerial decisions.

102 Managerial Accounting (4)

Prereq: 101. Continuation of 101. See 101 for description.

Course prerequisites are indicated at the beginning of the course description, following the abbreviation "Prereq." If a student has any doubts if he has fulfilled prerequisites, due to changes in the numbering system over the past several years, he should check the course titles and consult with his adviser and the office of the dean. A student who completes an advanced course may not subsequently enroll in a prerequisite course for credit.

If a course is offered for other than the normal academic year of fall, winter and spring quarters, this fact is noted in parentheses after the prerequisite. Such courses are offered only in the quarters specified.

INSTRUCTORS — The listing is as of May, 1972. Unless otherwise indicated in italics following the quarter specification in the course description, the course is taught by the staff of the department.

FEE—When a course requires a private instructional fee, the amount is stated in the course description.

CLASS SCHEDULE — A Schedule of Classes is available each quarter from the Office of Registration.

303 Accounting Principles and Procedures (4)

Prereq: 102. Fundamental accounting principles and practices emphasizing data accumulation using accounting techniques. Primarily intended for those specializing in accounting.

304 Intermediate Accounting (4)

Prereq: 303. Preparation and analysis of accounting statements; special problems in accounting for current, fixed and intangible assets, for liabilities and for corporate net worth; funds and reserves, and investments.

305 Intermediate Accounting (4)

Prereq: 304. Continuation of 304. See 304 for description.

310 Cost Accounting (4)

Prereq: 102. Manufacturing cost determination under job-order and process systems. Establishment of standard costs, budgets and analysis of variances.

311 Industrial Accounting (4)

Accounting principles with emphasis on accounting for material, labor and overhead in job-lot and process cost systems. Not open to students working toward BBA degree. No credit for those who have completed 75-76 or 101-102.

317 Federal Income Taxes (4)

Prereq: 102 or perm. Introduction to federal income tax system for individuals, partnerships and corporations.

340 Advanced Cost Accounting (4)

Prereq: 310. Analysis of relevant costs for decision-making including nonmanufacturing costs. Current cost accounting topics.

345 Accounting Systems and Internal Control (4)

Prereq: 303 and QM 200. Systems approach to data collection, classification and dissemination.

347 Advanced Federal Income Taxes (4)

Prereq: 317. Advanced tax problems of individuals, partnerships and corporations with emphasis on tax research and tax methodology.

406 Advanced Accounting (4)

Prereq: 305. Problems peculiar to partnerships, receiverships, fiduciaries, installment sales, consignments, insurance, estates and trusts; compound interest applications; governmental accounting; branches, consolidations, and mergers and foreign exchange.

407 Advanced Accounting (4)

Prereq: 305. Seminar in current topics.

451 Auditing Principles (4)

Prereq: 24 hrs of accounting. Purposes and scope of audits and examinations; audit principles and procedures; audit reports and certificates.

491 Seminar (3, 4 or 5)

Prereq: perm. Selected topics of current interest in accounting area.

493 Readings (1-15)

Prereq: perm. Readings in selected fields of accounting. Topics selected by student in consultation with faculty member.

495 Research (3, 4 or 5)

Prereq: perm. Methodology, analysis of data and preparation of research findings.

497 Independent Research (1-15)

Prereq: perm. Research in selected fields of accounting under direction of faculty member.

498 Internship (1-15)

Prereq: perm.

AEROSPACE STUDIES

The Aerospace Studies Program offers two programs leading to a commission as a second lieutenant in the United States Air Force. The four-year program is designed for students who can begin Air Force ROTC with the fall quarter and complete aerospace studies requirements by their date of graduation. Students taking the four-year program begin by scheduling ASt 101 of the General Military Course.

The two-year program is designed for students unable to take Air Force ROTC during their first two years of college. It is similar to the last two years of the four-year program. Students interested in this program will not schedule Air Force ROTC during their first two years; however, they should consult the director of aerospace studies during their freshman year (or, in any event, not later than fall quarter of the sophomore year) for instructions regarding ASt 250, a prerequisite.

Both programs, especially the two-year program, are highly competitive for selection into the Professional Officer Course (ASt 300 and 400 series). Entry is based upon a "best qualified" selection process. Completion of the General Military Course (ASt 100 and 200 series) or ASt 250 does not guarantee entry into the Professional Officer Course (POC), but makes one eligible to compete for acceptance into the POC. After achieving commissioned status, the officer serves a minimum of four years active duty with the United States Air Force. For further information contact the director of aerospace studies.

101 Beginning Aerospace Studies (1)

(fall) *Brown, staff.* Doctrine, mission and organization of the United States Air Force and U.S. strategic offensive forces. 1 hr of academics and 1 hr of leadership lab each wk.

102 Aerospace Studies (1)

(winter) *Brown, staff.* U.S. defensive forces, their mission, function and employment of nuclear weapons, civil defense, aerospace and missile defense. 1 hr of academics and 1 hr of leadership lab each wk.

103 Aerospace Studies (1)

(spring) *Brown, staff.* U.S. general purpose and aerospace support forces, mission, resources and operation of tactical air forces, with special attention to limited war and

review of Army, Navy and Marine general purpose forces. 1 hr of academics and 1 hr of leadership lab each wk.

201 Aerospace Studies (1)

(fall) *Nicholson, staff.* Role of the military in the United States national policies and the elements and process of defense decision-making. 1 hr of academics and 1 hr of leadership lab each wk.

202 Aerospace Studies (1)

(winter) *Nicholson, staff.* Defense policies, theories of general war and nature and context of limited war, as well as policies and strategies of the Soviet Union and China. 1 hr of academics and 1 hr of leadership lab each wk.

203 Aerospace Studies (1)

(spring) *Nicholson, staff.* Role of alliances in U.S. defense policy, defense organization and decision-making and organization and function of the Dept of Defense. 1 hr of academics and 1 hr of leadership lab each wk.

301 Aerospace Studies (3)

Prereq: GMC and perm. (fall) *King, staff.* History and development of airpower in the United States. Communicative skills and qualities of leadership. 3 cl hrs, 1 leadership lab hr.

302 Aerospace Studies (3)

Prereq: 301 and perm. (winter) *King, staff.* Covers in-depth mission and organization of Dept of Defense, Air Force concepts, doctrine and employment. Continues communicative skills via student presentations and written reports. Emphasizes qualities and techniques of leadership. 3 cl hrs, 1 leadership lab hr.

303 Aerospace Studies (3)

Prereq: 302 and perm. (spring) *King, staff.* Present and future astronautics and space operations; future development of aerospace power. Continues communicative skills and techniques of leadership. 3 cl hrs, 1 leadership lab hr.

401 Aerospace Studies (3)

Prereq: 303 and perm. (fall) *Sizemore, staff.* Military professionalism, leadership theory, demonstration and practice. Development of communicative skills. 3 cl hrs, 1 leadership lab hr.

402 Aerospace Studies (3)

Prereq: 401 and perm. (winter) *Sizemore, staff.* Principles and functions of management. Continue leadership demonstration and practice. Military justice. Continue development of communicative skills. 3 cl hrs, 1 leadership lab hr.

403 Aerospace Studies (3)

Prereq: 402 and perm. (spring) *Sizemore, staff.* Human relations, personnel policies; junior officer administrative and staff responsibility; briefing for commissioned service. Continue leadership demonstration and practice. Continue development of communicative skills. 3 cl hrs, 1 leadership lab hr.

AFRICAN STUDIES

See International Studies

ARCHITECTURE

These courses are subject to revision. For updated information, check with the department.

301 Architectural Design I (6)

Prereq: EnvD 403, 463. Problems designed to develop analytical approach to formulating criteria for solving environmental problems and establish design concepts based on these objectives and criteria. Emphasis on human activity patterns as a generator of physical form.

302 Architectural Design I (6)

Prereq: 301. Continuation of 301. See 301 for description.

303 Architectural Design I (6)

Prereq: 302. Continuation of 301-302. See 301 for description.

363 Mechanical Equipment (3)

Prereq: EnvD 463, arch mathematics requirement. Study and design of heating, ventilating, air-conditioning, equipment and systems and of acoustical, electrical, lighting, plumbing and water supply systems.

364 Mechanical Equipment (3)

Prereq: 363. Continuation of 363. See 363 for description.

367 Design Materials (3)

Prereq: EnvD 403. (fall) Problems dealing with principals, theories and processes involved in interior construction.

401 Architectural Design II (6)

Prereq: 303, 364, 463 or perm. Continuation of 303 with emphasis on social objectives as generators of human activity patterns and their form implications for larger environmental systems.

Art

402 Architectural Design II (6)

Prereq: 401. Continuation of 401. See 401 for description.

403 Architectural Design II (6)

Prereq: 402. Continuation of 401 and 402. See 401 for description.

451 Philosophy of Architecture (3)

Prereq: EnvD 253. Development of architectural theory with special emphasis upon theory and philosophy of 20th century.

457 Seminar in Architectural Theory (3)

Prereq: 452 or perm. Issues and ideas in architectural history, such as cultural phenomenon of Classicism, Romanticism, Expressionism and Functionalism and their implications for architecture of the past and future.

458 Seminar in Architectural Theory (3)

Prereq: 457 or perm. Continuation of 457. See 457 for description.

463 Seminar in Advanced Structures (4)

Prereq: CE 433. (spring) In-depth investigation of indeterminate structures and contemporary complex structural systems such as shells, membranes, space frames, etc. Emphasis on total understanding of behavior of structures.

467 Seminar in Advanced Construction (3)

Prereq: 463, EnvD 463. (fall) Materials, methods and systems of building construction with special emphasis on those aspects of architecture pertinent to professional registration.

482 Seminar in Professional Practice of Architecture (3)

Prereq: 4th yr. (spring) Techniques and responsibilities of professional practice.

484 Seminar in Professional Practices in Interior Design (3)

Prereq: perm of upper division coordinator. (spring) Techniques and responsibilities of professional practice in interior design.

495 Directed Research I (1-6, max 24)

Prereq: written perm. Supervised group and individual projects.

103 Studio Foundations (5)

See 101 for description.

205 Painting (3 or 5)

Prereq: 101-103.

206 Painting (3 or 5)

Prereq: 205.

207 Painting (3 or 5)

Prereq: 206.

215 Ceramics (3 or 5)

Prereq: 101-103.

216 Ceramics (3 or 5)

Prereq: 215.

217 Ceramics (3 or 5)

Prereq: 216.

228 Drawing (3)

Prereq: 101-103.

231 Sculpture—Wood (3 or 5)

Prereq: 101-103.

232 Sculpture—Synthetic (3 or 5)

Prereq: 101-103.

233 Sculpture—Metals (3 or 5)

Prereq: 101-103.

236 Metal Design (3 or 5)

Prereq: 101-103.

241 Lithography (3 or 5)

Prereq: 101-103.

242 Intaglio (3 or 5)

Prereq: 101-103.

247 Relief Prints (3 or 5)

Prereq: 101-103.

248 Silk Screen (3 or 5)

Prereq: 101-103.

275 Weaving (3)

Prereq: 101-103.

276 Weaving (3)

Prereq: 275.

303 Watercolor (3)

Prereq: jr rank.

304 Watercolor (3)

Prereq: 303.

305 Painting (3 or 5)

Prereq: 207.

ART

101 Studio Foundations (5)

Required of all entering fr in art.

102 Studio Foundations (5)

See 101 for description.

306 Painting (3 or 5)

Prereq: 305.

307 Painting (3 or 5)

Prereq: 306.

308 Figure Painting (3)

Prereq: 207.

309 Figure Painting (3)

Prereq: 308.

315 Ceramics (3 or 5)

Prereq: 217.

316 Ceramics (3 or 5)

Prereq: 315.

317 Ceramics (3 or 5)

Prereq: 316.

321 Drawing Workshop (3)

Prereq: jr rank.

322 Drawing Workshop (3)

Prereq: 321.

328 Drawing (3)

Prereq: 228.

329 Drawing (3)

Prereq: 328.

331 Sculpture (3 or 5)

Prereq: 9 hrs sculpture.

332 Sculpture (3 or 5)

Prereq: 331.

333 Sculpture (3 or 5)

Prereq: 332.

336 Metal Design (3 or 5)

Prereq: 236.

341 Prints (3 or 5)

Prereq: 9 hrs prints.

342 Prints (3 or 5)

Prereq: 341.

343 Prints (3 or 5)

Prereq: 342.

360 Art for Elementary Teachers (6)

Prereq: jr rank.

375 Weaving (3)

Prereq: 276.

376 Weaving (3)

Prereq: 375.

405 Painting (3 or 5)

Prereq: 307.

406 Painting (3 or 5)

Prereq: 405.

407 Painting (3 or 5)

Prereq: 406.

415 Ceramics (3 or 5)

Prereq: 317.

416 Ceramics (3 or 5)

Prereq: 415.

417 Ceramics (3 or 5)

Prereq: 416.

418 Glass (3)

Prereq: sr rank or perm.

419 Glass (3)

Prereq: 418.

428 Drawing (3)

Prereq: 329.

429 Drawing (3)

Prereq: 428.

431 Sculpture (3 or 5)

Prereq: 333.

432 Sculpture (3 or 5)

Prereq: 431.

433 Sculpture (3 or 5)

Prereq: 432.

436 Metal Design (3 or 5)

Prereq: 336.

441 Prints (3 or 5)

Prereq: 343.

442 Prints (3 or 5)

Prereq: 441.

443 Prints (3 or 5)

Prereq: 442.

461 Art Experiences in the Elementary School (3)

Prereq: jr rank.

462 Art Teaching in the Secondary School (3)

Prereq: jr rank.

475 Weaving (3)

Prereq: 376, perm.

476 Weaving (3)

Prereq: 475.

480 Individual Problems (1-5)

Prereq: perm.

481 Individual Readings (1-5)

Prereq: perm.

ART, PHOTOGRAPHY

The major requirement for the BFA degree consists of a minimum of 30 hours beyond 207. Students entering 101 are required to have a suitable camera plus their own processing and enlarging accessories.

101 Basic Photography (3)

Prereq: major or perm. Introduction to art and techniques of photography. 1 lec, 4 lab.

102 Basic Photography (3)

Prereq: 101. Same as 101. See 101 for description.

103 Basic Photography (3)

Prereq: 102. Continuation of 101-102. See 101 for description.

205 Intermediate Photography (5)

Prereq: Basic photography, portfolio and perm. Thorough indoctrination into craftsmanship of medium with emphasis upon esthetic considerations. 3 lec, 4 lab. Majors expected to enroll concurrently in AH 337-339.

206 Intermediate Photography (5)

Prereq: 205. Continuation of 205. See 205 for description.

207 Intermediate Photography (5)

Prereq: 206. Same as 205-206. See 205 for description.

371 Advanced Photography (5)

Prereq: dept review of 207 portfolio and perm. Individual problems joined with classroom discussions. 1 lec, 8 lab.

372 Advanced Photography (5)

Prereq: same as 371. See 371 for description.

373 Advanced Photography (5)

Prereq: same as 371. See 371 for description.

377 Combined Applications (5)

Prereq: dept review of 207 portfolio and perm. Fundamentals of portraiture. 2 lec, 6 lab.

378 Combined Applications (5)

Prereq: same as 377. Fundamentals of advertising and commercial work. 2 lec, 6 lab.

379 Combined Applications (5)

Prereq: same as 377. Fundamentals of architectural renditions and industrial. 2 lec, 6 lab.

451 Multiple Images (5)

Prereq: 207. Camera reporting and documentaries; essays and picture stories; book layout; experimental work with multiple images for any desired single or accumulative effect. 2 lec, 6 lab.

452 Multiple Images (5)

Prereq: 207. See 451 for description.

453 Multiple Images (5)

Prereq: 207. See 451 for description.

471 Senior Work (5)

Prereq: 15 hrs beyond 207. Individual problems on a seminar basis. 1 lec, 8 lab.

472 Senior Work (5)

Prereq: same as 471. See 471 for description.

473 Senior Work (5)

Prereq: same as 471-472. See 471 for description.

481 Independent Study (1-5)

Prereq: perm before registration. Individual study and practice in a phase of photography under instructor's supervision.

482 Independent Study (1-5)

Prereq: same as 481. See 481 for description.

483 Independent Study (1-5)

Prereq: same as 481-482. See 481 for description.

ART HISTORY

237 History of Photography (4)

Prereq: soph rank or perm. History of development of photography as an art, a science and an industry. Study of leading photographers and their contributions to development of the art.

238 History of Photography (4)

Prereq: 337. Continuation of 237. See 237 for description.

239 History of Photography (4)

Prereq: 238. Continuation of 237-238. See 237 for description.

311 History of Painting and Sculpture (3)

312 History of Painting and Sculpture (3)
Prereq: 311.

313 History of Painting and Sculpture (3)
Prereq: 312.

320 Greek Art (4)
Prereq: 311-313 or perm. Specific developments in period between Minoan/Helladic cultures and those of Alexandrian Empire.

321 Roman Art (4)
Prereq: 311-313 or perm. Motifs and concepts ranging from Etruscan artifacts through Hellenistic to advent of Constantine.

322 Medieval Art (4)
Prereq: 311-313 or perm. Painting and sculpture from time of Constantine to that of Giotto.

323 Italian Renaissance Art (4)
Prereq: 311-313 or perm. Monuments, motifs and their implications in Quattrocento Italy.

324 Northern Renaissance Art (4)
Prereq: 311-313 or perm. Monuments, motifs and their applications in Renaissance France, England and the Low Countries and in Reformation Germany.

325 Art of High Renaissance and Mannerism (4)
Prereq: 311-313 or perm. Studies in art and theory of Cinquecento.

326 Baroque and Rococo Art (4)
Prereq: 311-313 or perm. Paintings and sculpture of 17th and 18th centuries.

327 Art of the 19th Century (4)
Prereq: 311-313 or perm. Arts and their development during and after Industrial Revolution.

328 Modern Art (4)
Prereq: 311-313 or perm. Specific movements and artists since 1900.

329 The Arts of the United States (4)
Prereq: 311-313 or perm. Specific problems and their patterns from Colonial Era.

330 The Arts of the Orient (4)
Prereq: 311-313 or perm. Selected studies of arts of India, China and Japan.

331 Pre-Columbian Art (4)

Prereq: 311-313 or perm. Arts of early Mexico, Middle and South America.

332 African Art (4)

Prereq: 311-313 or perm. Survey of traditional West African tribal art.

333 Ancient Near Eastern Art (4)

Prereq: 311-313 or perm. Motifs and monuments of Egypt, Mesopotamia, Assyria and Babylonia.

334 Aspects of Film (see listing under FILM)

337 Studies in the Narrative Film (See listing under FILM)

338 Studies in the Documentary Film (See listing under FILM)

339 Studies in the Imagist Film (See listing under FILM)

340 Art and Ideas in Painting (4)

Prereq: sr rank, 311-313 and 1 art history course, or perm. Examination of the approach of painters of western art to their work. Non-historical in nature, using subject matter as framework and foundation with ideas and concepts concerning the creative act and artist-work of art relationship.

480 Individual Problems (1-6)

Prereq: perm.

481 Individual Readings (1-6)

Prereq: perm.

ASTRONOMY

300 Elementary Astronomy (3)

Prereq: mathematics through trigonometry, and elementary physics. Apparent motions of sun, moon, planets and stars. Relations between apparent positions of celestial objects and time, latitude and longitude of observer. Applications to time determination, surveying and navigation. Physical properties of earth, moon and planets.

301 The Solar System (3)

Prereq: 300. Physical properties of sun, moon, planets, comets, meteors and meteorites. Atmospheres, temperatures and surface conditions of other planets. Origin and evolution of the planets.

302 Stars and Galaxies (3)

Prereq: 301. Methods of studying sizes, temperatures, densities and compositions of stars and nebulae. Physical properties of our galaxy. Physical properties of other galaxies and their arrangement in space. Theories of origin and evolution of stars and galaxies.

310 Astronomy Laboratory (1)

Prereq: 300 or with 300. Observational work at telescope. Computations of coordinates of celestial objects. Practice with marine sextant and aviation octant. Solution of navigation problems.

311 Astronomy Laboratory (1)

Prereq: 300 and 310. Observational work at telescope, with emphasis on moon and planets. Measurement of astronomical photographs and spectrograms. Reduction of astronomical data.

312 Astronomy Laboratory (1)

Prereq: 301 and 311. Observational work at telescope, with emphasis on stars, nebulae and galaxies. Measurement of stellar spectrograms for determination of radial velocity. Spectroscopic measurement of velocities of recession of galaxies and quasars.

320 Elements of Navigation (2)

Prereq: 300, mathematics through trigonometry. (on demand) Basic navigational astronomy; use of sextant and nautical almanac; line of position method as used in air and surface navigation.

350 Celestial Mechanics (4)

Prereq: 301, differential equations. (on demand) Differential equations of planetary motion; vector treatment of 2-body problem; determination of orbits of planets and satellites.

450 Studies in Astronomy (1-6, arranged)

Prereq: 302.

240 Primary Flight Instruction (4)

Prereq: FAA written passed. 40 hrs flight training and related lectures including primary flight maneuvers and cross-country flying. Meets requirements for private pilot's certificate. 1 lec, 5 lab. Course fee: \$680.

310 Commercial Ground Instruction (4)

Prereq: private pilot's certificate. 40 hrs ground instruction covering advanced radio navigation, meteorology, FAA regulations, aircraft construction, performance data and instruments to meet requirements of commercial written exam. 4 lec.

315 Flight Instructor Ground Instruction (4)

Prereq: commercial pilot's certificate or perm. 40 hrs review of all previous instruction with emphasis on how to instruct and a breakdown of maneuvers. Covers requirements for flight instructor written exam. 4 lec.

340 Intermediate Course No. 1 (4)

Prereq: private pilot's certificate. 40 hrs flight training consisting mainly of solo cross-country. 5 lab. Course fee: \$550.

343 Intermediate Course No. 2 (4)

Prereq: private pilot's certificate and 340, or perm. 40 hrs flight training consisting mainly of solo cross-country to build flying hrs toward a higher rating. 5 lab. Course fee: \$550.

345 Intermediate Course No. 3 (3)

Prereq: private pilot's certificate, 340, and 343, or perm. 35 hrs flight training consisting of introduction to advanced maneuvers and cross-country to qualify for commercial course. 5 lab. Course fee: \$495.

415 Instrument Ground Instruction (3)

Prereq: commercial pilot's certificate or perm. 30 hrs ground instruction on flying solely by reference to instruments to meet requirements of instrument written exam. Included are maneuvers, navigation, meteorology, radio procedures and instrument interpretation. 3 lec.

418 Instrument Instructor Ground Instruction (3)

Prereq: instrument rating. 30 hrs review of instrument course with emphasis on how to instruct instrument flying. Covers requirements for instrument written exam. 3 lec.

AVIATION

110 Primary Ground Instruction (4)

40 hrs ground instruction covering radio navigation, meteorology, FAA regulations, communications, aircraft construction and performance data to meet requirements of private pilot's written exam. 4 lec.

420 Commercial Flight Course (4)

Prereq: private pilot's certificate and 120 flying hrs from approved school or 140 hrs from unapproved school, and FAA written passed, 40 hrs dual flight instruction and solo practice designed to increase proficiency toward commercial pilot certificate. Includes cross-country, advanced maneuvers, night and instrument instruction. 5 lab. Course fee: \$720.50.

421 Airline Transport Ground Instruction (4)

Prereq: instrument rating and multi-engine rating. 40 hrs advanced course placing major emphasis on specific requirements and duties of airline transport pilots in accordance with Federal Aviation Regulations. Provides aeronautical requirements for airline transport pilot written exam. 4 lec.

443 Flight Instruction in Multi-Engine Aircraft (2)

Prereq: pilot's certificate or perm. 12 hrs of procedures with both engines operative, with one engine inoperative (feathered), single engine speeds, effects of airplane configuration on engine-out performance. Enroute operations, single engine approaches and landings. 1 lec. Course fee: \$432.

445 Flight Instructor Course (3)

Prereq: commercial pilot's certificate or perm. 25 hrs review of commercial course with emphasis on how to instruct and analysis of maneuvers. 5 lab. Course fee: \$404.

448 Instrument Flight Course (4)

Prereq: commercial pilot's certificate or perm. 30 hrs of instruction of flight by sole reference to instrument approaches. 5 lab. Course fee: \$567.

450 Instrument Flight Instructor Course (2)

Prereq: instrument rating. 25 hrs of review of instrument course with emphasis on how to instruct on instruments. 5 lab. Course fee: \$438.

460 Airline Transport Pilot Flight Course (2)

Prereq: commercial pilot's certificate, instrument and multi-engine rating and perm. 15 hrs taking a practical and operational approach to problems that arise in planning and conducting air transport operations. 5 lab. Course fee: \$540.

BACTERIOLOGY

See Zoology

BLACK STUDIES

Education

Fine Arts

History and Political Science

Language Arts and
Communications

Literature

Sociology and Psychology

Education

140 Survey of Physical Sciences (3)

Seminar which provides basic understanding of physical sciences and their practical application for teaching in inner-city schools.

240 Introduction to Education (5)

Ultimate aim of education is to enable each child to develop a positive image of himself as a *person* and a *learner*. This seminar explores areas of identity, self-worth and positive regard as elements of the learning environment. Head Start, early childhood grades and primary grades stressed.

241 Affective Educational Strategies (5)

Explores affective strategies and how they can be designed and implemented to support learner. Primary and elementary grades stressed.

242 Black Education Seminar (5)

Educational processes in relation to contemporary society, cultural forces and institutions helping to shape education; some resulting issues and problems. School as an institution of education, its guiding theories and basic practices, as well as role of teacher will provide a staging point for this seminar.

340 Art and Poetry of Black Children (3)

Primarily for those who plan to become teachers or other school-connected personnel. Actual children's art and poetry from classroom experiences used. Major emphasis on use of children's writing as a means of instilling self-worth as a learner.

342 Teaching Techniques for Inner-City and Special Populations (5)

Seminar designed to simulate problems present in practice of teaching in inner-city schools. Group resolution through confrontation, discussion and feedback from students cast in teaching roles and related school situations. Grades kindergarten through 12.

Fine Arts

220 Afro-American Art and Thought (5)

African and Afro-American art and literary styles from Harlem Renaissance (1920s) to present.

320 Black Music Seminar I: The Blues Era (3)

Contributions of past and present non-white writers, performers and historians in area of popular music forms. Their relationship to development of popular music for the black population and impact that it has upon ethnic development stressed.

321 Black Music Seminar II: Early Jazz to Be-bop (3)

See 320 for course description.

322 Black Music Seminar III: Cool Jazz to Soul Era (3)

See 320 for course description.

History and Political Science

150 Introduction to Black Social Development (5)

General discussion and critical analysis of historical and social development in West Africa from 14th century up to beginning of colonial slave trade.

151 Introduction to Afro-American History (5)

Examination of impact of people of Afro-American descent on general development of American society. Particular consideration given to interconnection between struggles of black people and decisive political, economic, social and cultural trends in America.

152 History of the Black Worker (5)

Analysis of historical role of black labor force in the American economy, with emphasis on pattern of relationships between black workers and general organization of American labor movement.

153 History of Colonialism (5)

Analysis of historical development of colonization throughout the world.

250 Basic Political Economy (5)

Exploration of theories of political policies and economic processes, their interrelations and their influence on socio-economic character of the black community.

251 Afro-American Socio-Economic Development I (5)

Prereq: 250. Political-economic study of historical development of black people in American society from colonial period to 1860.

252 Afro-American Socio-Economic Development II (5)

Prereq: 251. Continuation of 251: 1860 to 20th century. Extensive coverage of Reconstruction era through development of American imperialism and consequence of these processes on Afro-American community.

253 History of Neo-Colonialism (5)

Prereq: 153. Current conditions and trends of development of colonized peoples and their relationship to society at large.

254 History of Injustice in the United States (5)

Slavery in United States, reconstruction, Emancipation Proclamation, Freedman's Bureau, black codes and modern forms of oppression.

350 The Black Community in the 20th Century (5)

Prereq: 252 or perm. Survey of black community's development during 20th century and its relation to development of larger American society over the same period. Attention given to interconnection between social conditions and certain aspects of black liberation movements.

351 Analysis of American Pluralism (5)

Analysis of basic philosophy and practice of American pluralism. Particular emphasis placed on impact of pluralist practices on development of local political communities.

352 Black Political Thought (5)

Survey of socio-political aspects of black community's voting power, voting rights and opportunities for political office, as well as strategies for change.

353 Comparative Colonialism (5)

Prereq: 250 or perm. Seminar in selected social systems.

450 Politics of Liberation (5)

Prereq: 250 and perm. Research or directed reading based on student's special interest.

451 Critique of Afro-American Thought (5)

Prereq: 252. Critical evaluation of relation between policies of historically foremost black figures and various trends of black liberation movement. Emphasis on influence and implications of socio-political thought and course of recent development of black community and American society.

Language Arts and Communications

101 Practice Writing (3)

Fundamental writing techniques for articles and research papers. Grammar, syntax and organization of information will be covered.

102 Practice Study Skills (3)

Comprehension and fundamental study techniques.

201 Creative Writing (3)

Creative writing practicum.

301 Project and Proposal Writing (3)

Seminar for students who will ultimately be employed in community roles where proposal writing and project design skills are necessary. It is suggested that 101 or 201 be taken before 301.

302 Culture and Politics of African Language (5)

Political and socio-cultural forces which effect developmental changes of African languages. Geographic areas bordering on and including Nigeria emphasized.

401 Blacks in Media (3)

Contributions of past and present non-white broadcasters and their relationship to development of radio and television media. Socio-cultural achievement, opportunities and strategies for change form backdrop for this course.

Literature

130 Literature of the Third World (5)

Survey of literature of Africa, South America, Cuba, Mexico, the Caribbean and Black America. Cultural, social and political perspectives, and the ramifications before and after nominal independence of third world investigated.

231 Literature of Latin America (5)

Survey of literature of Latin America from cultural, social and political perspectives.

232 Literature of West Africa (5)

Survey of literature of West Africa from cultural, social and political perspectives.

235 The Souls of Black Folk (5)

Definitive study in genre and ideas treating the odyssey of black people in America.

236 The Name and Nature of Afro-American Literature (5)

Definitive study in genre and ideas treating the odyssey of black people in America.

237 Imagination and the Black Experience in America (5)

Black narrative as re-creation and celebration of Afro-American experience.

238 Poetics of the Afro-American Experience (5)

Various modes (e.g. ballad, sonnet, blues, jazz, folk) and moods (e.g. neo-classical, romantic, realistic, naturalistic, surrealist) of black poetry from folk origins through the Harlem Renaissance.

239 Afro-American Theater and Drama (5)

Afro-American theater and black drama as it rehearses the tragedy, comedy, pathos, humor, blues and soul of black life.

330 Advanced Seminar in Third World Literature (5)

Prereq: 130 or 231. See 130 for course description.

333 Literature of South Africa (5)

A seminar for jrs, srs and graduate students to view literature as documents of history based on premise that certain historical, political and economic conditions produce social situations which are dramatized in plays, novels, short stories, poems, etc., written by those who have experienced the peculiarities of these conditions.

335 Afro-American Renaissance Man — Ralph Ellison (5)

Seminar restricted to jrs, srs and grad students who are primarily literature majors to study a man and his works.

Sociology and Psychology

260 History and Psychology of Colonialism (5)

Introductory approach to historical development of colonialism and psychological effects resulting from that phenomenon.

261 Social Psychology of Colonized People (5)

Prereq: 260 or perm. Contemporary view of world-wide colonization and its social, psychological and cultural effects upon people who must develop a life style appropriate for existence in a colonized environment.

264 Comparative Study of Injustice (5)

Examination of experience of black people in United States, South Africa and Congo, with emphasis on psychological and social effects. Indigenous literary works which reflect conditions of these effects used.

360 The Black Family (5)

Black family in America and its important role in development of ethnic differences, strengths and strategies.

490 Independent Study (1-15)

Primarily for srs with special perm from dean.

BIOLOGY

See Botany or Zoology

BOTANY

The major requirement for the AB degree is a minimum of 45 hours in departmental courses, and for the BS degree, 55 hours, including ten hours at the junior-senior level. Both AB and BS degree candidates must complete the following requirements: Bot 101, 102, 307, 308, 309, 405, 424, 425 or 426, 431 and 475 and Zool 203.

Nondepartmental courses required for both the AB and BS degrees are: Chem 121, 142, 143, 301, 302, 303, 304; Zool 325; Phys 201, 202 and 203; Math 263A and 263B. Ten hours of English are required.

For preparation for forestry, see curriculum outlined under Arts and Sciences special curricula section.

Students majoring in botany are permitted to take courses satisfying major requirements on a pass-fail option according to University regulations governing the use of this option.

The department recommends, however, that the student majoring in botany take all departmental major requirements for a letter grade. This is especially important if students expect to apply to graduate or professional schools for instruction beyond the degree of bachelor of science.

101 Principles of Biology (5)

(fall) Introduction to principles and concepts of life; emphasis on interrelationships of structural, functional, reproductive, evolutionary and ecological principles related to cells and organisms. (Same as Zool 101.) 3 lec, 2 lab.

H101 Principles of Biology (5)

Prereq: perm. (fall) Introduction to principles and concepts of life; emphasis and interrelationships of structural, functional, reproduction, evolutionary and ecological principles related to cells and organisms. Designed for students of unusual curiosity who may not intend to follow a botanical, zoological or medical curriculum. 3 lec, 2 lab.

102 Plant Biology (5)

Prereq: 101. (winter, spring) Morphology and physiology of vascular plant. Selected topics on evolution and life cycles in plant kingdom. 3 lec, 2 lab.

248 Dendrology (5)

Prereq: 102. (fall) Collection, identification, nomenclature and classification of native and introduced woody plants, in leafy and winter conditions. 3 lec, 4 lab, 2 Saturday field trips.

267 Vegetation of North America (3)

Prereq: 1 yr of biological science. (winter) *W. Wistendahl*. Illustrated lecture course considering extensive plant formations with relationship to climate, soil, geographic formations and influence of man. 3 lec.

307 Morphology of Nonvascular Plants (6)

Prereq: 102. (winter) *J. H. Graffius*; *J. Cavender*. Comparative studies of phylogenetic relationships, structural adaptations and life histories of algae, fungi and bryophytes. 4 lec, 4 lab.

308 Morphology of Vascular Plants (6)

Prereq: 307. (spring) *J. Fisher*. Comparative studies of phylogenetic relationships, structural adaptations and life cycles of fern allies, ferns, gymnosperms and angiosperms. 4 lec, 4 lab.

309 Taxonomy of Flowering Plants (5)

Prereq: 102. (spring) *R. Lloyd*; *R. Scoffin*. Identification and classification of flowering plants with emphasis on family relationships. 3 lec, 6 lab, 3 Saturday field trips.

310 Principles of Mycology (5)

Prereq: 102. (spring) *J. Cavender; C. Miller*. Collection, isolation, cultivation and life-history studies on selected fungi of the major groups. 3 lec, 4 lab.

311 Biology and Human Affairs (3)

Prereq: 102. (fall) *Staff*. Discussions of impact of modern biological science upon human problems in biological, social, moral and political areas. No credit toward botany major requirement. Applies to the natural science requirement.

312 Plant Anatomy (5)

Prereq: 102. (fall) *J. Fisher*. Comparative structure and systematic anatomy of vascular plants. 3 lec, 3 lab.

313 Special Topics in Botany (1-6)

Prereq: perm. Current and/or special topics in botany.

368 Teaching of Biology (3)

Prereq: 18 hrs biological sciences. (fall, spring) Purposes of high school biology, instructional materials, classroom methods with emphasis on laboratory techniques, sources of laboratory equipment, supplies. 3 lec. No credit toward botany major requirement. Not applicable to Arts and Sciences natural science or 300-level requirements.

404 Undergraduate Research (2-6)

Prereq: 24 hrs botany and perm. Independent research under supervision of faculty member.

405 Discussions About Biology (2)

Prereq: 15-20 hrs biology. (winter) Discussions of experimental problems and approaches focusing on a synthesis of ideas and principles in biological fields.

420 Fresh-Water Algae (5)

Prereq: 307 or 102, with perm. (fall) *J. H. Graffius*. Taxonomy and ecology of fresh-water algae, with emphasis on identification and distribution of common or representative genera. 3 lec, 4 lab.

424 Plant Physiology (6)

Prereq: Organic chemistry recommended. (winter) *L. Larson*. Basic chemical and physical aspects of plant processes: photosynthesis, respiration, mineral nutrition, transport, nitrogen metabolism, water relations and growth. 3 lec, 4 lab.

425 Plant Autecology (5)

Prereq: sr rank; course in plant physiology. (spring) *I. Ungar*. Effect of environmental factors on species growth and distribution. 3 lec, 4 lab, 1 Saturday field trip.

426 Plant Synecology (5)

Prereq: sr rank, course in plant taxonomy. (fall) *W. Wistendahl*. Natural plant communities. 3 lec, 4 lab, 1 Saturday field trip.

431 Cytology (5)

Prereq: 10 hrs biological science, 1 yr chemistry, Zool 325 recommended. (spring) *J. Braselton, J. Mitchell*. Gross and fine structure of cells; mitosis; meiosis; morphology; chemistry; behavior of nuclear and cytoplasmic constituents. 3 lec, 4 lab.

432 Microtechnique (5)

Prereq: sr rank and perm. (alternate fall, 1971) *J. Braselton*. Preparation of plant tissues for microscopic study. 6 lab.

H450 Honors in Biology (5)

Prereq: students in the Honors College. (spring) *M. Jaffe*. Central ideas of modern biology with focus on several appropriate and current problems. Creative spirit in biology and in science as a whole. Similarities and differences of the process of discovery in art, philosophy and science. Primarily a reading course with discussions among the group.

475 Evolution (3)

Prereq: srs in botany, biology, zoology; perm. (winter) Principles of evolution discussed in terms of methods of analysis, rates, patterns and processes, and as a framework for various disciplines in science of botany. 3 lec.

H494 Honors in Botany (2-15)

Prereq: perm. Undergraduate research by qualified students.

BUSINESS ADMINISTRATION

The general business major prepares professionals on a broad basis for a business career.

In addition to the BBA degree requirements, a student majoring in general business must complete 16 hours from College of Business Administration course offerings at the 300 or 400 level including at least one course from each of the following departments: accounting and quantitative methods, administrative sciences, economics and organizational science.

101 Business and Its Environment (4)

Nature of business and of economic, social and political environments of the business firm. Emphasis on ways in which such surroundings affect business policies and operations.

111 History of American Business (4)

Origins and development of American business, emphasizing interrelations among business, the economy, the society and the polity.

310 Production Management (4)

Prereq: jr rank. Emphasis on organization of production function and its relationship to other management and functional activities.

411 Production Planning and Control (4)

Prereq: 310. Quantitative techniques used in premanufacturing and control phases of production function.

412 Production Management Problems (4)

Prereq: 310. Case studies of production problems in various industries.

431 Administration of Information Systems (4)

Prereq: sr rank or perm. Information networks and flows in organizations within total-systems framework.

445 Small Business Administration (4)

Place of small business organizations in our society; need for organizations in certain segments of business society; problems faced, opportunities involved and competitive considerations.

455 Studies in Business History (4)

Prereq: jr or sr rank. Case studies of American businessmen and firms since early colonial period, with emphasis on the 20th century. Lessons from the past are examined in relation to present sound business policy.

460 Future of Information Management (4)

Prereq: 431 or BIC 430. Planning and implementing change in information systems. 10-yr look ahead for administrators. Information management changes required for decision making in both profit-centered and service-centered organizations.

465 Technology and the Environment (4)

Prereq: jr or sr rank. There is everywhere a great concern with 'things to come.' Real problem is not just to predict the future but how to anticipate, control and change it. Course is conceptual, interdisciplinary and future oriented. Variety of developmental problems and interaction of many technological environments including social, political, economic, marketing, as well as technical.

470 Administrative Policy (4)

Prereq: C.B.A., sr rank. Integrated application of core studies to nature, functions and activities of actual business, analyzing objectives, policies and performance—all in relation to outside environment.

480 Ethics and Morality in Business (4)

Prereq: jr or sr rank. Combined moral philosophy and personal responsibilities in actual business and administrative case decisions. These are most complicated of all, demanding critical analysis of contextual situation where provisional resolutions must be indirectly charted between ethical oughts and economic musts.

485 International Comparative Administration (4)

Prereq: jr or sr rank. Survey and analysis of similarities and differences in management systems, processes and styles, as well as evaluation of changes and their impact in selected groups of countries such as Britain, Czechoslovakia, West Germany, India, Israel, Japan, United States and U.S.S.R.

490 Research (3, 4 or 5)

Prereq: perm. Methodology, analysis of data and preparation of research findings.

491 Seminar (3, 4 or 5)

Prereq: perm. Selected topics of current interest in business administration area.

493 Readings (1-15)

Prereq: perm. Readings in selected fields of business administration. Topics selected by student in consultation with faculty member.

497 Independent Research (1-15)

Prereq: perm. Research in selected fields of business administration under direction of faculty member.

498 Internship (1-15)

Prereq: perm.

BUSINESS AND INDUSTRIAL COMMUNICATIONS

325 Communication Behavior in the Modern Organization (4)

Prereq: jr rank. Various communication strategies which will help student employ more effectively diverse communication media available in organizations today. Emphasis on communicator invention and arrangement of oral and written communiques and receiver adaption through feedback analysis.

425 Management of Human and Technological Information Systems (4)

Prereq: 325. Communication flows, information systems and impaction patterns on individual behavior and organizational accomplishment.

430 Information Management (4)

Prereq: sr rank or perm. Information networks and flows in organizations within a total-systems framework.

491 Seminar (3, 4 or 5)

Prereq: perm. Selected topics of current interest in business and industrial communications area.

493 Readings (1-15)

Prereq: perm. Readings in selected fields of business and industrial communications. Topics selected by student in consultation with faculty member.

495 Research (3, 4 or 5)

Prereq: perm. Methodology, analysis of data and preparation of research findings.

497 Independent Research (1-15)

Prereq: perm. Research in selected fields of business and industrial communications under direction of faculty member.

498 Internship (1-15)

Prereq: perm.

BUSINESS LAW

355 Law and Society (4)

Prereq: jr or sr rank. Conceptual approach to origin, nature, structure, functions and procedures of law with study of contractual relationships.

356 Law of the Management Process (4)

Prereq: 355. Conceptual framework of legal nature of organizations, particularly corporations and partnerships; rights, powers and limits of managers in relation to duties and responsibilities to their organizations, owners, creditors, employees, customers, state and public.

357 Law of Commercial Transactions (4)

Prereq: 355. Legal aspects of commercial paper, consumer credit and bankruptcy.

370 Environmental Law (4)

Legal aspects of both individual environmental and societal environmental rights and duties with respect to constitution, private property, nuisance, negligence, statutes, regulatory agencies and court decisions. Emphasis upon case study of federal, state and local laws which shaped existing law and those which are likely to shape future legislative and administrative action.

442 Law of Property (4)

Prereq: 356 or perm. Property law as an institution and analysis of creation, transfer and relation of various legal interests in property, especially land.

462 Law of Estates and Trusts (4)

Prereq: 356 or perm. Law as it pertains to decedents' estates including law of wills, intestate succession and trusts.

475 Government and Business (4)

Prereq: 355 or perm. Governmental regulatory environment of business including analysis of statutes, court decisions and rulings affecting policy decisions.

491 Seminar (3, 4 or 5)

Prereq: perm. Selected topics of current interest in business law area.

493 Readings (1-15)

Prereq: perm. Readings in selected fields of business law. Topics selected by students in consultation with faculty member.

495 Research (3, 4 or 5)

Prereq: perm. Methodology, analysis of data and preparation of research findings.

497 Independent Research (1-15)

Prereq: perm. Research in selected fields of business law under direction of faculty member.

CHEMISTRY

A student who completes the requirements for the BS degree with a major in chemistry is eligible for professional status in the American Chemical Society in the minimum period of two years of professional experience after graduation. Completion of the minimum requirements for the AB degree with a major in chemistry does not qualify a student for certification to the society.

The major requirement for the BS degree includes the following: 121-142-143; 305-306-307; 308-309; 400; 453-454-455; 456-457; 476; 484-485, and three additional hours (other than 499) above 400. Extra-departmental requirements include Math 263C and Phys 253, which should be completed by the end of the second year.

The major requirement for the AB degree includes the following: 121-142-143; 301-302 or 305-306-307; 303-304 or 308-309; 325 or 484-485; 351 or 453-454-455, and 476. A full year's work is required in at least one of the following fields: analytical (143-484-485); or-

ganic (305-306-307), or physical (453-454-455).

Students in AB and BS chemistry major programs may not enroll on a "pass-fail" basis in chemistry, physics and mathematics courses at the 200 level and above. This restriction on pass-fail enrollment also applies to zoology coursework for chemistry majors in pre-professional programs and to education courses for chemistry majors who are also meeting teaching certification requirements.

Students having foreign language requirements should take German. Those anticipating graduate study should obtain a reading knowledge of German and Russian or German and French. Details of the MS and PhD programs are given in the Graduate Bulletin.

A ten dollar breakage card will be required for all chemistry laboratory courses, the unused portion of which will be refunded.

Completion of the AB or BS degree requirements automatically completes the requirement of the College of Arts and Sciences of at least nine hours in the major at the junior-senior level.

121 Introduction to Chemistry (5)

Prereq: h.s. algebra, h.s. chemistry desirable. (fall, winter, summer) Open to students in all areas. Designed to provide an introduction to chemistry through study of atomic and molecular structure, bonding, states of matter and identification of materials.

122 Chemistry of Solutions (4)

Prereq: 121. (winter, spring, summer) Introduction to descriptive inorganic chemistry through study of solutions and concept of equilibrium. For students from colleges of engineering and technology (except chemical engineering), education (except science modular program), other colleges and programs within Arts and Sciences requiring only 1 yr of chemistry. Credit not allowed for both 122 and 142.

123 Environmental Chemistry (4)

Prereq: 122 or perm. (spring, fall) Designed to survey organic chemistry, biochemistry and nuclear chemistry with emphasis upon day-to-day problems. May serve as a prerequisite for Zool 463 for HEFN-Option A students.

142 Chemical Energetics (5)

Prereq: 121, 3 yrs h.s. mathematics or Math 113 desirable. (winter, spring, summer) Designed as an introduction to thermodynamics through study of solutions. Emphasis placed upon problem solving. Recommended for chemistry, preprofessional (biological science areas), chemical engineering, medical technology, zoology, physics, mathematics and second-

dary education—science modular program—majors. Credit not allowed for both 122 and 142.

143 Quantitative Analysis (5)

Prereq: 142 or H191 or perm. (spring, fall) Introduction to quantitative techniques to include volumetric and gravimetric methods of analysis.

H190 Honors Chemistry (4)

Prereq: h. s. algebra, physics and chemistry. (fall) For students with superior training in high school science and mathematics. Satisfies University College requirement of 1 yr of laboratory science. 3 lec, 3 lab.

H191 Honors Chemistry (4)

Prereq: H190. (winter) Continuation of H190. See H190 for description.

301 Organic Chemistry (3)

Prereq: 123 or 143 or H191 or perm. (fall and summer) Designed for students who are not BS chemistry majors and who do not require a full-year course in organic chemistry.

302 Organic Chemistry (3)

Prereq: 301. (winter, summer) Continuation of 301. See 301 for description.

303 Organic Chemistry Laboratory (1)

Prereq: 301 or 305, or with 301. (fall, spring, summer) Designed for students who are not BS chemistry majors. 3 lab.

304 Organic Chemistry Laboratory (2)

Prereq: 303 and 302 or with 302. (winter, summer) Continuation of 303. See 303 for description. 6 lab.

305 Organic Chemistry (3)

Prereq: 143 or H191 or perm. Organic chemistry for chemistry majors and other students wishing to acquire a sound knowledge of classical and modern organic chemistry.

306 Organic Chemistry (3)

Prereq: 305. Continuation of 305. See 305 for description.

307 Organic Chemistry (3)

Prereq: 306. Continuation of 305-306. See 305 for description.

308 Organic Chemistry Laboratory (2)

Prereq: 306, or with 306. (winter) Synthesis, purification and characterization of organic compounds. 6 lab.

309 Organic Chemistry Laboratory (2)

Prereq: 308 and 307 or with 307. (spring) Continuation of 308. See 308 for description.

325 Instrumental Methods of Analysis (5)

Prereq: 143. (fall, winter) Analytical chemistry course for students not majoring in chemistry, which emphasizes application of instrumental methods to solution of problems in chemical analysis.

351 Physical Chemistry (4)

Prereq: Math 263B. (fall) Students having lesser preparation in math are encouraged to seek perm to enroll based on special individual circumstances. For premedicine, science modular and AB chemistry majors. Topics include thermodynamics, thermochemistry, equilibrium, solutions, electrochemistry and kinetics.

400 Qualitative Organic Analysis (5)

Prereq: 307, 309. (fall, spring) Separation and identification of organic compounds. 3 lec, 6 lab.

420 Chemical Literature (3)

Prereq: 24 hrs, reading knowledge of German. Chemical literature in journals, handbooks, monographs and patents.

450 Principles of Quantum Chemistry (3)

Prereq: Math 263C or perm. (winter) Introduction to solution of problems concerning molecular structure and spectroscopy in terms of quantum theory.

453 Physical Chemistry (3)

Prereq: 143, Math 263C, Phys 253. Kinetic theory, structure of matter, thermodynamics, chemical equilibrium, solutions and rates of reactions.

454 Physical Chemistry (3)

Prereq: 453. Continuation of 453. See 453 for description.

455 Physical Chemistry (3)

Prereq: 454. Continuation of 453-454. See 453 for description.

456 Physical Chemistry Laboratory (2)

Prereq: 351 or 453.

457 Physical Chemistry Laboratory (2)

Prereq: 456. Continuation of 456.

458 Chemical Thermodynamics (3)

Prereq: 455. (fall)

460 Spectroscopic Methods in Organic Chemistry (3)

Prereq: 307, 455. (fall) Modern spectroscopic methods as employed in organic chemical research: NMR, IR, UV, ESR and mass spectrometry.

461 Introductory Quantum Chemistry (4)

Prereq: 455. (winter) Application of wave equation to simple physical systems of chemical interest. Mathematical techniques developed in use of quantum mechanical operators, differential equations and special functions as solutions to such problems as the hydrogen atom.

476 Modern Inorganic Chemistry (4)

Prereq: 351 or 453 or with 351 or 453. (fall) Considers relationship between physical and chemical properties of inorganic substances and nature of bonding and structures involved.

477 Synthetic Methods of Inorganic Chemistry (2-3)

Prereq: 476. (winter) Theoretical principles and practices of synthesis, purification and characterization of inorganic substances. 1 lec, 3-6 lab.

479 Radiochemistry (4)

Prereq: 143 or perm. (spring) Application of isotopes to problems in chemistry; safe handling of radioactive material; detection and determination of radiation.

480 Advanced Organic Chemistry (3)

Prereq: perm. (winter) Stereochemistry.

484 Electrochemical Methods of Analysis (5)

Prereq: 351 or 453. (alternate quarters) Modern electrochemical techniques with emphasis on their applications in analytical chemistry. Topics include potentiometry, specific ion electrodes, DC and AC polarography, pulse polarography, coulometry, chronocoulometry, cyclic voltammetry, rapid scan voltammetry.

485 Spectrochemical Analysis (5)

Prereq: 351 or 453. (alternate quarters) Survey of spectrochemical instrumentation with emphasis on their operation and application in analytical chemistry. Topics include atomic absorption, atomic emission, molecular absorption and molecular emission and will cover emission-absorption phenomena in the X-ray, ultraviolet, visible and infrared regions of electromagnetic spectrum.

486 Advanced Analytical Chemistry (4)

Prereq: 455. (summer) Fundamental principles of analytical chemistry; a rigorous treatment of equilibrium in aqueous and nonaqueous systems, precipitate formation, electrochemistry, stoichiometry and volumetric methods of analysis.

488 Chemical Instrumentation (4)

Prereq: 455. Fundamentals of electronics emphasizing circuitry in modern chemical instruments. 3 lec, 3 lab.

Comparative Arts

490 Introduction to Biochemistry (3)

Prereq: 302 or 307. (fall) Basic course in biochemistry which covers content and methodology of major areas of modern biochemical research.

491 Introduction to Biochemistry (3)

Prereq: 490. (winter) Continuation of 490. See 490 for description.

492 Introduction to Biochemistry (3)

Prereq: 491. (spring) Continuation of 491. See 490 for description.

499 Undergraduate Research (as recommended)

Prereq: jr or sr rank with B average in chemistry or perm. Independent work for qualified upperclass chemistry majors.

CHINESE

See Foreign Languages and Literatures

COMPARATIVE ARTS

Courses in introduction to fine arts and history courses in individual content areas.

This sequence of courses is provided for majors in the College of Fine Arts who wish to study the relationship of all the arts, and for all students in the University who wish to elect courses with the basic purpose of understanding their cultural heritage.

The entire sequence of courses will operate as full-year courses on a three-quarter sequence; three quarter hours of credit for each quarter for a total of nine quarter hours.

The courses service the following areas:

1. As humanities requirements for College of Fine Arts majors.
2. As humanities requirements for students in other degree colleges and for transfer students from other universities.
3. Introductory courses serve as state requirements for certification in the College of Education.

117 Introduction to Fine Arts (3)

(fall) Analysis of form, media and content of major arts stressing interrelationships of architecture, dance, dramatic art, music, literature and painting through recognition of common art factors.

118 Introduction to Fine Arts (3)

Prereq: 117. (winter) Analysis of form, media and content of major arts stressing interrelationships of architecture, dance, dra-

matic art, music, literature and painting through recognition of common art factors.

119 Introduction to Fine Arts (3)

Prereq: 117 and 118. (spring) Analysis of form, media and content of major arts stressing interrelationships of architecture, dance, dramatic art, music, literature and painting through recognition of common art factors.

303 History and Criticism of Courtroom Oratory (3)

Famous cases and methods of communication of masters of courtroom and judicial oratory. Cases, trials including Cicero, Strafford, Charles I, Erskine, Hastings, Marshall, Webster, Darrow, Sacco-Vanzetti.

304 History and Criticism of Political Oratory (3)

Methods of communication, rhetorical theories of masters of political oratory. Debates including Burke, Chatham, Pitt, Calhoun, Clay, Webster. Movements including nationalism, imperialism, social and political reform.

305 History and Criticism of 20th Century Oratory (3)

Methods of communication of masters of the period. Figures: Hitler, Mussolini, Lenin, Wilson, Churchill, Roosevelt, Kennedy, King. Movements: rhetoric of revolution, nationalism, facism, socialism, communism, republicanism.

311 History of Painting and Sculpture (3)

(fall) Periods, styles and great personalities from early times to present. Analysis of esthetic qualities in masterpieces of art.

312 History of Painting and Sculpture (3)

Prereq: 311. (winter) Periods, styles and great personalities from early times to present. Analysis of esthetic qualities in masterpieces of art.

313 History of Painting and Sculpture (3)

Prereq: 312. (spring) Periods, styles and great personalities from early times to present. Analysis of esthetic qualities in masterpieces of art.

317 Problems in Comparative Arts (3)

Prereq: not open to fr. (fall) Analysis of form, media and content of major arts stressing interrelationships of architecture, dance, dramatic art, music, literature and painting through recognition of common art factors.

318 Problems in Comparative Arts (3)

Prereq: 317, not open to fr. (winter) Analysis of form, media and content of major arts stressing interrelationships of architecture, dance, dramatic art, music, literature and painting through recognition of common art factors.

319 Problems in Comparative Arts (3)

Prereq: 317 and 318, not open to fr. (spring) Analysis of form, media and content of major arts stressing interrelationships of architecture, dance, dramatic art, music, literature and painting through recognition of common art factors.

321 History and Literature of Music (3)

Prereq: Mus 103. *R. Wetzel*. History of music with survey of musical literature to 1450.

322 History and Literature of Music (3)

Prereq: 321 or Mus 321. *R. Wetzel*. History of music with survey of musical literature, 1450-1720.

323 History and Literature of Music (3)

Prereq: 322 or Mus 322. *R. Wetzel*. History of music with survey of musical literature, 1720 to present.

351 History of Architecture (3)

(fall) Development of architecture with emphasis on environmental influences. Illustrated lec.

352 History of Architecture (3)

Prereq: 351. (winter) Development of architecture with emphasis on environmental influences. Illustrated lec.

353 History of Architecture (3)

Prereq: 351 and 352. (spring) Development of architecture with emphasis on environmental influences. Illustrated lec.

370 History of Theater I (3)

S. Quinn. Development of theater and drama in western world. 370: prehistoric, Greek and Roman periods; 371: Medieval and Renaissance; 372: from Renaissance to modern. 3 lec.

371 History of Theater II (3)

Prereq: 370. Continuation of 370. See 370 for description.

372 History of Theater III (3)

Prereq: 371. Continuation of 370 and 371. See 370 for description.

470 Greek Theater and Drama (4)

(fall, odd academic years) Drama, theater and audience in ancient Greece. 3 lec.

471 Roman and Medieval Theater (4)

(winter, odd academic years) Intensive study of drama and theater of Roman and Medieval Europe. 3 lec.

472 Renaissance Theater and Drama (4)

(spring, odd academic years) Development of European theater and drama in Renaissance. 3 lec.

473 Restoration and 18th Century Theater (4)

(spring, odd academic years) Drama, theater and audience in England from Restoration through 18th century. 3 lec.

474 Baroque European Theater (4)

(fall, even academic years) Detailed study of theater and drama of Europe in Baroque period. 3 lec.

475 19th Century European Theater (4)

(winter, even academic years) Major developments in drama and theater in Europe during 19th century. 3 lec.

476 Contemporary Theater (4)

(spring, even academic years) Trends and developments in 20th century theater. 3 lec.

477 American Theater and Drama (4)

(spring, even academic years) Development of theater and drama in North America from colonial to modern times. 3 lec.

481 Individual Problems (1-6)

Prereq: open to jrs and srs only.

COMPUTER SCIENCE

See Mathematics

DANCE

101 Introduction to Dance I (5)

Prereq: perm of instructor. Basic dance technique, improvisation and composition. Survey of dance in 20th century.

102 Introduction to Dance II (5)

Prereq: 101 or equiv. Basic dance technique, improvisation and composition. Survey of dance in 20th century.

Dance

103 Introduction to Dance III (5)

Prereq: 102 or equiv. Basic dance technique, improvisation and composition. Survey of dance in 20th century.

111 Music for Dance I (2)

Nature and principles of rhythmic structure in dance and music.

120 Dance Technique (2)

(A) Modern dance, (B) ballet, (C) ethnic dance.

201 Dance Theory and Practice I (5)

Prereq: 103 or equiv. Intermediate dance technique, improvisation and composition. Anthropological basis for dance as evidenced in ritual and mythic forms.

202 Dance Theory and Practice II (5)

Prereq: 201 or equiv. Intermediate dance technique, improvisation and composition. Anthropological basis for dance as evidenced in ritual and mythic forms.

203 Dance Theory and Practice III (5)

Prereq: 202 or equiv. Intermediate dance technique, improvisation and composition. Anthropological basis for dance as evidenced in ritual and mythic forms.

212 Dance Notation I (2)

Prereq: perm of instructor. Principles of dance notation.

220 Dance Technique II (2)

Prereq: 120 or equiv. (A) Modern dance, (B) ballet, (C) ethnic dance.

240 Laboratory in Educational Dance (1, max 12)

Prereq: perm of instructor. Opportunity to be an apprentice and to do supervised teaching in Dance Laboratory School. May be repeated.

250 Ethnic Dance of Nonwestern Cultures (2)

Dances from selected nonwestern cultures with emphasis on style and related folklore.

255 Ethnic Dance of Western Cultures (2)

Dances from selected western cultures with emphasis on style and related folklore.

301 Advanced Dance Theory and Practice I (5)

Prereq: 203 or equiv. Advanced dance technique and choreography. Analysis of contemporary and historical dance works.

302 Advanced Dance Theory and Practice II (5)

Prereq: 301 or equiv. Advanced dance technique and choreography. Analysis of contemporary and historical dance works.

303 Advanced Dance Theory and Practice III (5)

Prereq: 302 or equiv. Advanced dance technique and choreography. Analysis of contemporary and historical dance works.

312 Music for Dance II (2)

Prereq: 111 or equiv. Also for music composition majors who wish to write for dance theater. History of music for dance. Choreographer-composer relationship.

320 Dance Technique III (2)

Prereq: 220 or equiv. (A) Modern dance, (B) ballet, (C) ethnic dance.

351 Dance Cultures of the World I (4)

Introduction to dance cultures of the world (excluding western art dance). Function of dance in society and its relationship to other arts.

352 Dance Cultures of the World II (4)

Introduction to dance cultures of the world (excluding western art dance). Function of dance in society and its relationship to other arts.

353 Dance Cultures of the World III (4)

Introduction to dance cultures of the world (excluding western art dance). Function of dance in society and its relationship to other arts.

380 University Dance Company (1, max 12)

Prereq: perm of instructor and audition. Participation in performing company. May be repeated.

401 Independent Choreography and Experimental Production I (5)

Prereq: 303 or equiv. Advanced dance technique and experimental dance production.

402 Independent Choreography and Experimental Production II (5)

Prereq: 401 or equiv. Advanced dance technique and experimental dance production.

403 Independent Choreography and Experimental Production III (5)

Prereq: 402 or equiv. Advanced dance technique and experimental dance production.

411 Dance Notation II (2)

Prereq: 212 or equiv. Continuation of 212 with more advanced reading and writing in notation.

413 Dance Notation III (3)

Prereq: 411 or equiv. Continuation of 411 with more advanced reading and writing in notation.

420 Dance Technique IV (2)

Prereq: 320 or equiv. (A) Modern dance, (B) ballet, (C) ethnic dance.

441 Teaching Dance I (2)

Prereq: at least 1 qtr 240 or equiv taken concurrently. Principles of teaching dance and their practical application. Dance for children.

442 Teaching of Dance II (2)

Prereq: at least 1 qtr of 240 or equiv taken concurrently. Principles of teaching dance and their practical application. Dance for adolescents.

443 Teaching of Dance III (2)

Prereq: at least 1 qtr of 240 or equiv taken concurrently. Principles of teaching dance and their practical application. Dance for adults.

471 History of Dance I (4)

Development of western dance in the 19th and 20th centuries with emphasis on ballet and modern dance.

472 History of Dance II (4)

Survey of dance forms and their functions; dance motivation from sympathetic magic in tribal societies; in mythic ritual and in dance-drama.

473 History of Dance III (4)

Survey of dance from early Christian church through Baroque period.

480 Production Problems for Dance Theater (2)

Prereq: perm of instructor. Production problems involved with dance events including design, lighting, costume and administrative procedures.

490 Independent Study (1-10)

Prereq: perm of instructor.

331 Design Core Studio III (6)

Prereq: EnvD 403, perm. Interdisciplinary problem solving team. Discovery of individual directions as applied to practical problem solving, involving all design majors as a professional team dealing at times as a unit with both practical and conceptual problems, ranging in scope from university and community to current popular market and global needs. Students will investigate different specialized satellite courses in graphic and industrial design and fine arts to bring a variety of disciplines to bear upon the core studio. Students function independently or in groups, and also as a total interdisciplinary team.

332 Design Core Studio III (6)

Prereq: 331 and perm. Continuation of 331. See 331 for description.

333 Design Core Studio III (6)

Prereq: 332 and perm. Continuation of 331-332. See 331 for description.

334 Illustration I (4)

Prereq: EnvD 403, 442. Magazine, product and book illustration. Required of all majors.

335 Illustration II (4)

Prereq: 334. Continuation of 334. Required of all majors.

336 Illustration III (4)

Prereq: 335. Continuation of 335. Required of all majors.

337 Media Graphics (4)

Prereq: 331. Graphics for media presentations: film, television, 35 mm slides and overhead projection.

338 Film Animation (4)

Prereq: 331 and perm. Film animation and graphic design problem.

339 Packaging Graphics (4)

Prereq: 331 and perm. Examination of 3-dimensional graphic design problems.

421 Clay Modelling (4)

Prereq: 333. Technique of form manipulation.

422 Bionics (4)

Prereq: 333 and perm. Study of natural form as applied to design.

423 Consumer and Industrial Products (4)

Prereq: 333 or perm. Conception, rendering, design of consumer and industrial products.

DESIGN

These courses are subject to revision. For updated information, check with the department.

330 Typography (4)

Prereq: 331, Jour 221. Typography as a designer's tool. Emphasis upon experimental type design, setting type and practical application of abstract approaches to type.

431 Design Core Studio IV (6)

Prereq: 333 or perm. Model design studio, utilizing individual directions in team solutions. Real design problems from local to national and global concerns. Problems requiring brochures, booklets, posters, symbols, media (slide and film and television), products, production procedures, prototypes, research and educational communication both 2- and 3-dimensional.

432 Design Core Studio IV (6)

Prereq: 431. Continuation of 431. See 431 for description.

433 Design Core Studio IV (6)

Prereq: 432. Continuation of 431-432. See 431 for description.

434 Advanced Illustration I (4)

Prereq: 336. Advanced problems in illustration.

435 Advanced Illustration II (4)

Prereq: 434. Continuation of 434.

436 Advanced Illustration III (4)

Prereq: 435. Continuation of 435.

438 Layout and Art Direction (4)

Prereq: 333 or perm. Development of concepts for complex commercial and educational problems. Creative direction of production services: illustration, photography, key line and printing.

439 Exhibit Design (4)

Prereq: 337. Design of displays, exhibits and presentations with primary emphasis on presentations geared to a public audience.

495 Design Problems (1-12)

Prereq: perm. Supervised group or individual projects.

DESIGN, GRAPHIC

These courses are subject to revision. For updated information, check with the department.

330 Lettering (4)

Prereq: basic design program or perm. (fall, winter) Examining studio production of lettering, lettering as a design element, history and technique of lettering. Required of all majors.

339 Packaging Graphics (4)

Prereq: 332 or perm. (winter, spring) Examination of 3-dimensional graphic design problems.

430 Advanced Graphic Design I (4)

Prereq: 335 or perm. (fall) Advanced 2-dimensional graphic design problems. Continued study of design of brochures, booklets, posters, folders, books, pamphlets, signs, logotypes and symbols. Required of all majors.

431 Advanced Graphic Design II (4)

Prereq: 430 or perm. (winter) Advanced 3-dimensional graphic design problems. Required of all majors.

432 Advanced Graphic Design III (4)

Prereq: 431 or perm. (spring) Advanced 2- and 3-dimensional design problems. Required of all majors.

DESIGN, ENVIRONMENTAL

These courses are subject to revision. For updated information, check with the department.

151 Comparative Analysis of Humanities and Design (3)

Introduction to design and human behavior with special emphasis upon relevance of humanities and social sciences.

251 History of Environmental Design of the Ancient World (3)

History of interaction of man and his physical environment with particular emphasis upon relationship of cultural forces and visual forms of major historical periods of western world.

252 History of Environmental Design of Medieval and Renaissance Periods (3)

Prereq: 251, perm. Continuation of 251. See 251 for description.

253 History of Environmental Design of Baroque and Modern Periods (3)

Prereq: 252 or perm. Continuation of 252. See 251 for description.

301 Elementary Environmental Design (4)

Prereq: 151 and Math 263A concurrently and Architectural School Aptitude Test. (fall) Investigation into nature of visual stimulation, both natural and man-made; problems in understanding and organizing perceptual stimuli of human environment as design.

302 Elementary Environmental Design (4)

Prereq: 301 or perm. Continuation of 301. See 301 for description.

303 Elementary Environmental Design (4)

Prereq: 302 or perm. Continuation of 301 and 302. See 301 for description.

401 Intermediate Environmental Design (6)
Prereq: 151, 303 and Architectural School Aptitude Test. Understanding and organizing elements of human environment. Investigating interaction of these elements, use of design elements in solution of programmatic problems in human environment.

402 Intermediate Environmental Design (6)
Prereq: 401. (winter) Continuation of 401. See 401 for description.

403 Intermediate Environmental Design (6)
Prereq: 402. (spring) Continuation of 401 and 402. See 401 for description.

461 Introduction to Materials, Methods and Structure (3)
Prereq: Math 263C, Phy 202. (fall) Investigation of properties and applications of materials, systems and construction techniques.

462 Introduction to Materials, Methods and Structure (3)
Prereq: 461. Continuation of 461. See 461 for description.

463 Introduction to Material, Methods and Structure (3)
Prereq: 462. (spring) Continuation of 462. See 461 for description.

DESIGN, INDUSTRIAL

These courses are subject to revision. For updated information check with the department.

321 Elementary Industrial Design (3)
Prereq: EnvD 401 or perm. (winter, spring) History, philosophy and practices of industrial design profession; development of exploratory design concepts related to space, movement and form; emphasis on design theory and creative thinking.

327 Design Materials (4)
Prereq: 322 or perm. Exploration of design materials and processes, involving problems in paper, wood, metal, plastics; 3-dimensional surface development, clay modeling and model construction.

328 Design Materials (4)
Prereq: 327 or perm. Continuation of 327. See 327 for description.

329 Package Design (4)
Prereq: 328 or perm. Continuation of 327-328. See 327 for description.

421 Advanced Industrial Design (4)
Prereq: 326 or perm. Developmental research, conceptual design investigation and formal presentation of professional design solutions.

422 Advanced Industrial Design (4)
Prereq: 421 or perm. Continuation of 421. See 421 for description.

423 Advanced Industrial Design (4)
Prereq: 422 or perm. Continuation of 421-422. See 421 for description.

424 Design Research (4)
Prereq: 326 or perm. Advanced problems of theory and practice involving directed research methods, conceptual systems design and development projects and formal presentation techniques.

425 Design Research (4)
Prereq: 424 or perm. Continuation of 424. See 424 for description.

426 Design Research (4)
Prereq: 425 or perm. Continuation of 424-425. See 424 for description.

427 Prototype Model Development (4)
Prereq: 329 or perm. Development, fabrication and construction of full-size prototype models for appearance evaluation, market research, production tooling development, packaging and engineering studies and product planning research.

428 Prototype Model Development (4)
Prereq: 427. Continuation of 427. See 427 for description.

429 Prototype Model Development (4)
Prereq: 428. Continuation of 427-428. See 427 for description.

ECONOMIC EDUCATION

446 Economics in the Curriculum (3-5)
For teacher-education students designed to provide study of (1) fundamental economic concepts, (2) methods of inquiry employed by economist and (3) relationship of economics content to classroom instruction and instructional materials.

447 Economic Analysis and its Application to the Curriculum (2-5)
For elementary and secondary teachers designed to emphasize methods of inquiry employed by economists and their application to theories of instruction.

448 Economic Policy and its Application to the Curriculum (2-5)

For elementary and secondary teachers designed to provide application of economic analysis to economic policy and courses of study.

449 Economic Education Programs (3-5)

Economic education in schools. Administrative and organizational structures, current curriculum development projects, essential economic understandings that should be taught and their place in curriculum, ways to improve economic education and economic education organizations.

491 Seminar (3, 4 or 5)

Prereq: perm. Selected topics of current interest in economic education area.

492 Research (3, 4 or 5)

Prereq: perm. Methodology, analysis of data and preparation of research findings.

493 Readings (1-15)

Prereq: perm. Readings in selected fields of economic education. Topics selected by student in consultation with faculty member.

497 Independent Research (1-15)

Prereq: perm. Research in selected fields of economic education under direction of faculty member.

ECONOMICS

Two opportunities are open to students interested in majoring in economics: a liberal arts program in the College of Arts and Sciences and a business economics program in the College of Business Administration.

Majors in economics in the College of Arts and Sciences must complete the BA degree requirements of the college and, in addition, take at least 36 hours of economics including eight hours of Principles of Economics, Econ 303, 304 and 431.

Majors in business economics in the College of Business Administration must complete the BBA degree requirements in the college and take at least 20 additional hours of economics, excluding 431.

101 Principles (4)

Prereq: not open to jrs and srs. Basic theory of national income analysis. Economic problems and economic institutions of society.

102 Principles (4)

Prereq: 101. Continuation of 101. Basic theory and economic analysis of prices, markets, production, wages, interest, rent and profits.

H297 Economics for Honors College Students (4)

Prereq: enrollment in Honors College. Economic theory, history and statistics. Development of analytical framework for understanding contemporary economic issues and trends. Discussion, problem-solving, reports emphasizing student participation.

H298 Economics for Honors College Students (4)

Prereq: H297. Continuation of H297. See H297 for description.

301 Principles (4)

Prereq: not open to fr or soph or to those who have had 101 and 102. Description same as for 101-102, but content treated at more advanced level.

302 Principles (4)

Prereq: 301. Continuation of 301. See 101 for description, but content treated at more advanced level.

303 Economics of the Firm (4)

Prereq: 101 or 301. Price system as an allocative mechanism. Price and production policies of individual firms and consumers under alternative market conditions and analysis of these policies on social efficiency of resource allocation. Students expected to have an understanding of elementary algebra and geometry.

304 National Income and Employment Analysis (4)

Prereq: 102 or 302 or 303. Factors determining level of nation's economic activity and responsible for growth and stability in nation's economy. Part of course devoted to measures of national income while remainder consists of analysis of interrelationships among production, price levels, relative prices, employment and capital formation. Students expected to have an understanding of elementary algebra and geometry.

333 Money and Banking (4)

Prereq: 101 or 301. Nature of money, debt and credit; relations between money, finance and economic activity.

340 Current Economic Problems (4)

Prereq: 102 or 302 or perm. Application of economic theory to current economic problems with emphasis upon public policy implications. Depressed areas, technological unemployment, economic growth, inflation and agricultural instability considered.

395 An Introduction to Economic Methodology and Research (4)

Prereq: 102 or 302 or 303. Methods used by economists in investigation of economic problems. First part involves research methods,

including contemporary statistical estimation techniques. Second part applies these techniques to investigation of economic phenomena. Types of application include construction and testing of a simple econometric model, estimation of production functions, evaluating theories of factor pricing, estimating social costs of pollution, etc.

405 History of Economic Thought (4)

Prereq: 102 or 302 or 303. Evolution of major economic doctrines; mercantilists and cameralists, physiocrats, Adam Smith and classical school, historical school, Austrian school, Alfred Marshall and neoclassicists.

406 Modern Economic Thought (4)

Prereq: 102 or 302 or 303. Contributions to economics of most significant writers since Alfred Marshall.

407 Institutional Economics (4)

Prereq: 102 or 302 or 303. Economic theory and policy contributions of Veblen, Commons, Ayres and other modern dissenters from traditional economic thought. Principles of technological progress and institutional adjustment; influence on contemporary theory and policy.

415 Economic History of the United States (4 or 5)

Prereq: 102 or 302 or 303. Economic factors in development of United States including historical growth of economic institutions such as banking, manufacturing, labor unions and agriculture, from colonial times to present.

416 European Economic History (4 or 5)

Prereq: 102 or 302 or 303. Economic growth of developed countries. Focus on industrial revolutions in Great Britain, France, Germany, Soviet Union and Japan. Historical experience of these countries related to various theories of economic change.

418 Agricultural Development (4)

Prereq: 102 or 302 or 303. Patterns of agricultural development in United States and selected foreign areas; technological and demographic changes in agriculture; socio-economic problems; marketing arrangements; case studies of specific agricultural development projects.

420 Economic Development (4)

Prereq: 102 or 302 or 303. Nature of, obstacles to and future possibilities for economic growth of nations. Special emphasis given to problems of underdeveloped countries. Studies of selected countries utilized.

421 African Economic Development (4)

Prereq: 420 or perm. Economic characteristics of African societies as traditional economies and in process of modernization.

422 Chinese Economy (4 or 5)

Prereq: 420 or perm. Introductory familiarization with Chinese economy. China's early industrialization, 1880-1931, socialist transformation of each economic sector, 1949-1966, overall performance of Chinese economy and each economic sector and Maoist revision of orthodox Marxist-Leninist economic doctrines.

423 Economy of Latin America (4)

Prereq: 102 or 302 or 303. Characteristics of economies of Latin American countries. Particular emphasis on prospects for economic development of the region and nature and origin of institutional obstacles to economic change. Economic heritage of colonial period and subsequent evolution of economic institutions, resources of the area and their utilization and trends in economic activity and policy in post-WW II period.

424 Economics of Southeast Asia (4 or 5)

Prereq: 420. Economic characteristics, development problems, strategies and prospects of countries of Southeast Asia.

425 Comparative Economic Systems (4)

Prereq: 102 or 302 or 303. Theoretical and institutional characteristics of capitalism and socialism with specific emphasis on prevailing economic systems in United States, England and Russia.

426 Economics of the Soviet Union (4 or 5)

Prereq: 102 or 302 or 303. Operation of economy of Soviet Union. Allocation of resources, planning saving and investment, agriculture, public finance, price system and international trade.

428 Regional Analysis (4 or 5)

Prereq: 102 or 302 or 303. Theories of regional and interregional relationships and policies for regional development. Consideration of economic, geographic, demographic, political and social factors.

429 Economics of Planning (3 or 4)

Prereq: 102 or 302 or 303. Economics of planning and its major applications to private and public planning; national, regional and local planning; centralized and decentralized planning. Procedures and techniques of planning: organization, economic analysis, social accounting, input-output analysis, linear programming, location theory, industrial complex analysis; gravity, potential and spatial models, computers and planning; research and development.

430 Introduction to Mathematical Economics (4 or 5)

Prereq: 102 or 302 and perm. Mathematical analysis in economics. Calculus and matrix algebra techniques used prominently in economics literature, together with their application to selected problems in economics.

431 Statistics for Economists (4)

Statistical methods used in economics with special emphasis on time series and regression analyses.

435 Introduction to Econometrics (4 or 5)

Prereq: 303, 304, 430, 431 or perm. Applications of statistics to economics. Design and estimation of economic models. Estimation of simultaneous equation systems.

442 Economic Fluctuations (4)

Prereq: 102 or 302 or 303. Nature and causes of economic fluctuations, basic economic cycles, theories and their application in business world. Emphasis on advanced economic theory, on stabilization policies and analysis of stability of equilibrium.

443 Economics of the Environment (4)

Prereq: 102 or 302 or 303. Economic analysis of such environmental matters as air, water and noise pollution, population growth and land use. Emphasis placed on use of economic theory and empirical research in evaluating environmental policies.

445 Stabilization Policy (4)

Prereq: 303 and 304. Use of economic theory to formulate monetary and fiscal policies for minimizing cyclical fluctuations in economic activity.

450 Urban Economics (4 or 5)

Prereq: 102 or 302 or 303. Application of economic analysis to urban problems: urban economic growth and structure (location patterns, land use and environment, urban transportation and housing); human resources in urban economies and public sector in a metropolitan context.

453 Monetary History of the United States (4)

Prereq: 304 or 333. Correlation of developments in American history with development of monetary institutions, policy and theory. Evolution of commercial and central banking and relationship of these to economic activity in history of United States.

460 Organization and Structure of Industry (4)

Prereq: 102 or 302 or 303. Market structure, market conduct and market performance in

American industry. Emphasis on developing theoretical framework for evaluating efficiency of industry. Merger activity examined historically and its causes determined. Characteristics of principal manufacturing and processing enterprises evaluated. Contribution of theory of industrial organization to macroeconomic theory and microeconomic theory discussed.

461 Economic Policy and Industrial Organization (4)

Prereq: 102 or 302 or 303. Social consequences of monopoly and competition. Various policy prescriptions dealing with economic concentration and market structure considered, as well as impact of these policies on United States business. Government regulation of business reviewed and evaluated.

462 Government and Agriculture (4 or 5)

Prereq: 102 or 302 or 303. Problems of American agriculture as an industry; economics of government policies and programs; consideration of forces and objectives in policy formation.

463 Public Finance (4)

Prereq: 102 or 302 or 303. Role played by government as user of economic resources and redistributor of incomes. Some questions explored: need for government's entry into economy, optimal size of government, selection of tax and expenditures schemes and effects of government economic activity on private sector.

468 Economics of Transportation (3 or 4)

Prereq: 102 or 302 or 303. Economics of transport pricing; regulations of transport and national transport policy.

469 Public Utilities (3 or 4)

Prereq: 102 or 302 or 303. Economic basis of public utility concept and its relation to business organization. Nature, scope, development, legal organization and regulation of public utilities.

470 Labor Economics (4)

Prereq: 102 or 302 or 303. Economic forces generating modern labor problems. History of labor movement; labor in politics; labor-management relations; wages and full employment.

471 Labor Legislation (4)

Prereq: 102 or 302 or 303. Law bearing upon labor problems. Labor-relations legislation, old-age and unemployment insurance, workmen's compensation and wages-and-hours legislation.

475 Economics of Poverty (4)

Prereq: 102 or 302 or 303. Incidence, causes and consequences of poverty in the United States. Economic theory, history, statistics applied to analysis of poverty-reduction measures.

476 Economics of Human Resources (4)

Prereq: 102 or 302 or 303. Current developments in theory, empirical research and policy with respect to investment in human resources, economic value of education, manpower programs and growth.

480 International Economics (4)

Prereq: 102 or 302 or 303. Economic relations of nations of the world. Some of topics considered are: economic basis for international trade and investment; mechanics of international exchange; tariffs, quotas, exchange control, cartels and state trading as devices of economic nationalism, and international economic cooperation with special reference to organizations affiliated with United Nations.

481 International Economic Policy (4)

Prereq: 480. Current economic developments of foreign and United States economic policy. National and international aspects of policy will include tariffs, controlled trade, international agreements, commercial treaties, foreign exchange control, clearing agreements, international liquidity controversy and contemporary balance of payments problems. Roles of institutions such as world bank and International Monetary Fund discussed with emphasis on interaction of domestic and international goals and policies.

491 Seminar (3, 4 or 5)

Prereq: perm. Selected topics of current interest in economics area.

493 Readings (1-15)

Prereq: perm. Readings in selected fields of economics. Topics selected by student in consultation with faculty member.

493X Readings (1-15)

Prereq: perm. Study abroad.

495 Research (3, 4 or 5)

Prereq: perm. Methodology, analysis of data and preparation of research findings.

497 Independent Research (1-15)

Prereq: perm. Research in selected fields of economics under direction of faculty member.

EDUCATION

Educational Media

Elementary Education

Guidance, Counseling and Student Personnel Services

International Comparative Education and Educational Foundations

Professional Laboratory Experiences

Secondary Education

Special Education

The College of Education, including the School of Health, Physical Education and Recreation and the School of Home Economics, was in the process of curricular and structural reorganization at the time this catalog was printed; therefore, some or all of the courses described in this section may be revised. Any material concerning revisions may be obtained from the Student Personnel Services Office, College of Education, 124 McCracken Hall, Athens, Ohio 45701.

Educational Media

480 Introduction to Educational Media (4)

Prereq: jr rank. *P. Cain, P. Dyer*. Application of principles of instructional materials and media to teacher-student communication. Basic experiences provided in production of instructional materials and equipment operation.

481 Production of Instructional Materials (4)

Prereq: jr rank and 480, or perm of instructor. *P. Cain*. Develops basic pattern for preparation of a wide variety of locally produced, inexpensive instructional materials. Includes laboratory experience in the manipulation of pictures, lettering, coloring, preservation and reproduction techniques used in creating instructional pictures, slides, transparencies and other projected and non-projected materials.

482 Organization and Administration of Educational Media Programs (5)

Prereq: jr rank. *P. Dyer, G. Linnenbruegge*. Organization and administration practices for educational media programs in individual

schools and districts considered. Emphasis on budget procedures, evaluation techniques, staffing and acquisitions.

Elementary Education

200 Studies of Children (4)

Prereq: admission to teacher education. *J. Brunk, S. Navin*. Bases for a developmental theory of education; growth sequences through adolescence; principles of development, behavior and learning; techniques of child-study; implications for educational practice.

304 The Development of Kindergarten Education (3)

Prereq: 200 or HEc 160. *E. Starks*. History, development, philosophy and current trends in kindergarten education.

305 Materials and Methods in Kindergarten-Primary Education (3)

Prereq: 200 and 304. *E. Starks*. Work and play activities of early childhood and development, use and care of materials best suited to this age group.

310 The Teaching of Reading and Language Arts in the Elementary School (6)

Prereq: jr standing in teacher education. *W. Cooper, B. Morgan, staff*. Preservice preparation for developmental teaching of reading; text and supplementary readings, lectures and discussions, films and other resources, observations and projects for practical competence.

321 Children's Literature (4)

Prereq: admission to teacher education. *R. Pinney*. Criteria for selection of children's literature, children's reading interests, preparation of materials for use in literature program, use of choral reading and verse choir, and reading of outstanding literature for children.

330 Teaching of Mathematics in the Elementary School (4)

Prereq: 9 hrs of math, including Math 120 and jr standing in teacher education. *C. Smith and C. D'Augustine*. Methods of teaching numbers, numeration, operations, relations, problem solving, measurement and geometry.

340 Teaching of Science in the Elementary School (4)

Prereq: jr standing in teacher education; 12 hrs of science including biology and physical science. *L. Mills, P. Ploutz*. Materials and methods of teaching science in elementary

schools. Textbooks, science equipment and related instructional materials used in lab lessons.

350 Teaching of Social Studies in the Elementary School (4)

Prereq: 12 hrs of social science including Geog 121, jr standing in teacher education. *M. Felsing, A. Leep, H. Olsen*. Materials and methods in teaching content subjects in elementary schools with special emphasis upon practical experience in social studies unit teaching and skills.

400 Advanced Studies of Children (3)

Prereq: 20 hrs of education or psychology. *J. Brunk, S. Navin*. Intensive study of biological and environmental influences on human development from conception to maturity.

407 Evaluation in the Elementary School (3)

Prereq: 16 hrs of education. *Staff*. Standardized tests in elementary school with emphasis on selection, interpretation and use. Teacher-made tests, check lists, rating scales and anecdotal records. Elementary statistical treatment of test scores and grading.

411 Diagnosis and Treatment of Reading Disabilities (4)

Prereq: 310, perm. *W. Cooper, B. Morgan*. Correlates of variability in reading proficiency. Incidence of retardation and disability. Proposed causes of failure and concept of multiple causation. Specialized materials and instructional efforts. Systematic observation of cases of reading disability and preparation of case report.

412 Reading Laboratory Practicum (4, max 12)

Prereq: sr rank. *W. Cooper*. Application of developmental approach to problem cases in reading instruction, participation in diagnostic examination, parent and teacher conferences, individual procedures in tutoring, staffing of cases and preparation of reports. (Weekly group discussion period, lab sessions arranged.)

430 Modern Elementary Mathematics Curriculum (3)

Prereq: 330. *C. Smith, C. D'Augustine*. Modern elementary mathematics curriculum with emphasis on why changes are occurring. Nature of changes as reflected from experimental programs; effect of changes on methods of teaching. Implementation of these changes in classroom.

460 The Child and the Curriculum (4)

Prereq: student teaching. *K. Weimer*. Emphasis on service role of curriculum to children and society.

490 Study in Elementary Education (2-15)
Prereq: perm of dept chairman. Independent and/or group study of some special interest and concern (problems, area, questions) under guidance of staff; assigned and suggested readings and other resources and experiences; frequent conferences; preparation of final report.

Guidance, Counseling and Student Personnel Services

400 Seminar in Student Personnel Programs (3)

Need, value and philosophy of student personnel work in higher education. Fundamental concepts, principles and techniques of student residence programming, human behavior and higher education.

410 Human Relations (3)

Interpersonal relationships, both content and process oriented. Lectures and discussion groups focus upon dynamics of human relationships, factors fostering effective interaction and significance of self concepts in human communication.

420 Guidance Practices in Elementary Schools (4)

Need, scope and nature of elementary guidance are surveyed. Major emphasis on teacher's guidance responsibilities. Guidance approaches and procedures examined for their usefulness in working with children and parents. Techniques of appraising and changing attitudes and behavior studied. Roles of elementary school counselor and other pupil personnel specialists reviewed for their contribution to growth and development of children. Opportunity for students to achieve greater self-understanding through involvement in self appraisal.

430 Guidance in American Secondary Schools (4)

Basic foundations of high school guidance. Introduction to dynamics of adolescent. Use of pupil-centered appraisal tools and procedures, community resources and informational services.

440 Foundations in Group Dynamics (4)

General principles and basic techniques of group dynamics. Interaction in human relations situations that occur in residence halls, classrooms, business and community situations. Through individual readings and group participation, students learn to understand and use group dynamics principles in areas of personal and professional interaction.

International and Comparative Education

420 Comparative Cultures and Education (4)

Prereq: perm. (fall, spring) *S. Samaan*. Emphasis on distinctive cultural, economic and political forces which shape patterns, problems and roles of education in some selected developed and developing nations. These include United States, some European countries and at least one African and/or Asiatic nation where a former or present western culture has an impact. Assessment of this impact especially on educational developments.

425A Education and Development in Africa (4)

Prereq: perm. (winter) *S. Samaan*. Interdisciplinary course focusing on tradition and change in African societies, problems of political independence, economic development, cultural values in transition, tribalism and nationalism and role of Africa in world peace and international cooperation. Tradition and change in African education, landmarks in African educational developments and role of education in economic and technological development. Issues and problems in African education.

425B Education and Development in Asia (4)

Prereq: perm. Same emphasis as 425A on tradition and change in society, culture and education, and role of education in national development and international understanding; discussion of pertinent educational issues and problems.

425C Education and Development in Latin America (4)

Prereq: perm. Same emphasis as 425A-425B, on tradition and change in society, culture and education and role of education in national development and international understanding; discussion of pertinent educational issues and problems.

432 Perspectives in International Education (4)

Prereq: perm. *S. Samaan*. Interdisciplinary course dealing with concept and issues of international understanding, its psychological, economic and political preconditions; perceptions, values and attitudes that constitute or impede understanding among individuals, groups, races and nations; human and cultural dimensions in technical assistance programs and in international relations; role of education in attitude change and formation relative to international understanding and development.

Professional Laboratory Experiences

360 Field Experience in Elementary or Secondary Schools (2)

Prereq: jr rank, perm. (fall) *J. Evans*. Observation and participation for period of 2 wks at opening of school yr in September. Orientation meetings for this program are conducted by the Student Teaching Office during first wk of May each yr. Administrative approval of selected school system is required.

361 Field Service in Education (2)

Prereq: soph rank. (fall) *J. Evans*. Participation in community agencies, summer camps, recreation programs, Head Start and various school related programs other than September program (EdPL 360).

460 Observation and Participation in Elementary or Secondary Schools (3)

Prereq: perm. *J. Evans*. Extensive participation in school program extending over period of 1 qtr, designed primarily for students with some classroom teaching experience, especially students from other countries.

461 Student Teaching in Elementary Schools (6)

Prereq: perm. *J. Evans, staff*. Assigned responsibility for teaching under supervision of a master teacher in a classroom in K-6 range for 1 qtr, full-time. Concurrent registration in 461, 462 and 465 is required of all elementary education and speech therapy majors. Concurrent registration in 461, 463 and 465 is required of majors in art, music and physical education.

462 Student Teaching in Elementary Schools (6)

Prereq: 461. Continuation of 461. See 461 for description.

463 Student Teaching in Secondary Schools (6)

Prereq: perm. *J. Evans, staff*. Assigned responsibility for teaching under supervision of a master teacher in a classroom in 7-12 range for 1 qtr, full-time. Concurrent registration in 463-464-465 is required of all majors in secondary academic areas, home economics and industrial arts. Majors in art, music and physical education must register concurrently for 461, 463 and 465.

464 Student Teaching in Secondary Schools (6)

Prereq: 463. Continuation of 463. See 463 for description.

465 Student Teaching Seminar (3)

J. Evans, A. Eisen, staff. Analysis and interpretation of student teaching experience. Problem-centered discussion of major areas of concern directly related to classroom teaching. Structured discussion of unit and lesson planning, evaluation, classroom management, pupil adjustment, effects of recent legislation upon classroom teacher, position procurement, professional ethics, and professional organizations. Concurrent enrollment for 12 qtr hrs credit in student teaching is required.

466 Student Teaching for Advanced Students (6-9, max 9)

Prereq: perm. *J. Evans, staff*. Supervised observation, participation and limited teaching; open only to elementary education degree candidates and selected secondary education majors with a minimum of 3 yrs of prior teaching experience.

Secondary Education

250 Analysis of Teaching (4)

Prereq: admission to teacher education or perm of education personnel dean. Immediate focus upon teaching act with training in its systematic observation and analysis. Peer teaching, laboratory use of instructional media and tools for self-analysis. 3 lec, 2 lab.

331 Educational Research Techniques and Writing (3)

(winter) Concentration upon communication skills of reading, writing and speaking; utilizing educational writings dealing with history of education, philosophy, psychology, sociology and current issues. Development of critical reading, effective writing and speaking skills.

351 Instructional Process and Curriculum (5)

Prereq: 250 and admission to jr standing in teacher education, or perm of education personnel dean. Focus on current teaching techniques and materials. Continued emphasis on lab experiences and use of media. 4 lec, 2 lab.

H399 Honors Course (3-5, max 15)

Prereq: student teaching or perm. (winter) Seminar for honors students and students seeking honors in secondary education. Involves individual and group study in depth with opportunities for limited field investigations.

420 Teaching Reading in the Junior and Senior High School (5)

Prereq: 9 hrs and educational psychology. (spring) *D. Leighty*. Materials, methods and developmental patterns of adolescents in reading. Remedial programs and adaptation of materials to adolescent.

432 Evaluating Pupil Progress in Secondary Schools (3)

(spring) Test construction, teacher-made tests, standardized tests and instructional objectives of testing. Test evaluation, score interpretation and relation of tests to student development.

470 Teaching of Bookkeeping and Basic Business (3)

Prereq: 351 and Acct 303. (fall) Materials, methods and techniques in teaching bookkeeping and basic business subjects.

471 Teaching Mathematics in Middle and Junior High School (3)

(spring) Organization and methods of teaching subject matter of mathematics curriculum in grades 7 and 8. Number system studied.

472 Teaching of Earth Science (3)

Prereq: 351. (winter) *R. Skinner*. Instructional materials and techniques related to teaching earth science.

478 Teaching of Physical Science (3)

Prereq: 351 and perm. (spring) *R. Mitias*. Instructional materials, classroom methods, sources of lab equipment and supplies and teaching techniques in physical sciences.

479 Teaching of the Social Studies in Junior and Senior High Schools (3)

Prereq: 351 and perm. *A. Clubok*. Nature, development, purpose and value of social studies, with emphasis on methods and techniques of instruction. Curriculum reorganization, unit planning, materials of instruction and evaluation.

480 School and Society (3)

Prereq: student teaching or perm. Current trends and issues in American secondary education, utilizing materials drawn from social and cultural foundations of education.

490 Studies in Secondary Education (1-15, max 15)

Prereq: perm. *J. Thompson*. Serves a special projects function as defined by chairman of department. Honors students or students seeking honors in secondary education may register for this course.

Special Education

271 Introduction to Education of Exceptional Children and Youth (3)

Prereq: admission to teacher education. Educational needs of exceptional children including gifted, slow learner, trainable and educable mentally retarded, non-sensory neurologically impaired, speech handicapped, aurally and visually impaired and socially and emotionally maladjusted.

272 Introduction to Education of Mentally Retarded Children and Youth (3)

Prereq: 271 and admission to teacher education. *D. Peterson*. Etiology, diagnosis, classification, learning potential and general characteristics of retarded child with emphasis on psycho-sociological impact of retardation upon individual, his family and community.

371 Teaching the Preschool Handicapped (3)

Prereq: admission to jr standing in teacher education. Purpose, organization and methods utilized for education of preschool handicapped including program of home training.

372 Language Development for the Handicapped (3)

Prereq: admission to jr standing in teacher education. Normal language development versus delayed language acquisition and speech impairments common among mentally retarded. Methods and materials in evaluation and training of receptive, central and expressive language are presented.

373 Curriculum Development for Handicapped Children (3)

Prereq: 272 and admission to teacher education. Organization and development of curriculum including objectives, concepts, methods and materials with emphasis on preparation of resource units.

374 Language Arts for the Mentally Retarded (4)

Prereq: admission to jr standing in teacher education and EdEl 310. Organization methods and materials for teaching receptive and expressive language including listening, speech, reading, writing, spelling and functional composition.

375 Social Studies and Science for the Mentally Retarded (4)

Prereq: admission to jr standing in teacher education. Organization and methods of teaching science and social studies to the mentally retarded with emphasis on unit development.

376 Mathematics for the Mentally Retarded (2)

Prereq: admission to jr standing in teacher education. Organization methodology and materials for teaching basic math concepts and skills which have particular relevance to social and vocational adequacy of mentally retarded children and youth.

377 Vocational Education for the Handicapped (3)

Prereq: admission to jr standing in teacher education and EdSp 374, 375, 376. Roles of education, guidance, vocational training, placement and follow-up service in promoting adjustment of handicapped youth to community living.

378 Sheltered Workshop Organization (2)

Prereq: admission to jr standing in teacher education. Organization of sheltered workshop with emphasis on job analysis and contact work.

379 Homemaking and Family Living for the Handicapped (3)

Prereq: admission to jr standing in teacher education. Designed to develop understanding of objectives, organization, methods and materials essential to teaching handicapped child self-care, homemaking and family living skills for his youth and adulthood.

400 Introduction to Emotionally Disturbed Children (3)

Prereq: admission to jr standing in teacher education. Basic understanding of emotional disturbances including causes, characteristics and implications for behavioral and psycho-educational planning.

401 Teaching the Emotionally Disturbed Child (3)

Prereq: admission to jr standing in teacher education. Programs, methods and materials used in education of emotionally disturbed child emphasizing a team-developed prescriptive educational and behavioral procedure.

435 Recreation and Physical Education for the Mentally Retarded and Learning Disabled (5)

Prereq: admission to jr standing in teacher education. Preparation for presenting activities and evaluating mentally retarded and learning disabled children and youth in areas of body mechanics, physical fitness, games of low organization, sports, rhythms, stunts, tumbling and recreation activities.

470 Classroom Management with Problem Children (3)

Prereq: admission to jr standing in teacher education. Science of: preventing behavior problems; identifying specific disturbing behavior; learning to use behavior modification techniques in classroom.

474 Diagnosis and Remediation of Specific Learning Disabilities (4)

Prereq: admission to jr standing in teacher education. Techniques of assessing cerebral and perceptual dysfunctions and resultant cognitive and behavioral disorders with emphasis on neurological bases of sensory motor reaching approach to remediation.

475 Education of the Trainable Retarded (4)

Prereq: admission to jr standing in teacher education. Etiology, diagnosis, classification, learning potential, organization of curriculum and teaching methodology for trainable retarded, including brain-damaged, cerebral palsied and hyperactive children.

476 Teaching the Learning Disabled (4)

Prereq: admission to jr standing in teacher education and EdSp 474. Assignment of an individual child for purpose of doing a comprehensive evaluation of and writing a prescriptive program for the child.

477 Problems of Adjustment for the Handicapped (3)

Prereq: admission to jr standing in teacher education. Designed to promote understanding of theory and techniques of working with parents of exceptional children as well as promoting adjustment of child within family and community. Emphasis placed on interpreting conditions of handicap to parents and in helping parents to accept and integrate handicapped child into home and community.

478 Education of the Disadvantaged and Handicapped (3)

Prereq: admission to jr standing in teacher education. Problems and new approaches to education of disadvantaged children handicapped through intellectual impairment, sensory deficits, perceptual disorders, etc.

490 Study of Special Education (2-15)

Prereq: admission to jr standing in teacher education and perm from director of special education. Independent analysis of problems, special interests, concerns, with assigned and suggested readings, programmed experiences and preparation of final report, with guidance of staff member.

ENGINEERING AND TECHNOLOGY

100 Engineering and Technology (3)

Introductory course to engineering and technology for all students. Lectures in related fields and involvement in engineering problems through student selected projects.

350 Engineering and the Technological Society (3)

Prereq: soph or jr rank. (winter) Foundation concepts of engineering, impact and social consequences of engineering on society, technology and human values.

ENGINEERING, CHEMICAL

200 Introduction to Chemical Engineering (4)

Prereq: Chem 122 or 142, Math 263A. (fall, spring). Applications of chemistry, physics and mathematics to solution of material and energy balances typical of those encountered in process industries. 3 lec, 2 lab.

302 Chemical Engineering Thermodynamics and Kinetics (4)

Prereq: 200, Math 263C. (fall) Application of thermodynamics to chemical engineering problems, including problems in chemical equilibrium for homogeneous and heterogeneous systems, mixtures and pure materials. Applications of chemical kinetics to design of chemical reactor systems. 3 lec, 2 lab.

303 Chemical Engineering Thermodynamics and Kinetics (4)

Prereq: 302. (winter) Continuation of 302. See 302 for description. 3 lec, 2 lab.

304 Chemical Engineering Thermodynamics and Kinetics (3)

Prereq: 303. (spring) Continuation of 302-303. See 302 for description. 3 lec.

331 Principles of Engineering Materials (4)

Prereq: Chem 122 or 142. (fall, winter, spring, summer) Fundamental principles underlying behavior of engineering materials. Relationship between structure and properties of ceramic, metallic and polymeric materials. 4 lec.

342 Unit Operations I (5)

Prereq: 200, Math 263C. (fall) Fundamental principles of fluid flow, heat and mass transfer.

343 Unit Operations II (3)

Prereq: 342. (winter) Continuation of 342. See 342 for description.

344 Unit Operations III (4)

Prereq: 343. (spring) Stagewise processes including distillation and extractions. 3 lec.

400 Applied Chemical Engineering Calculations (3)

Prereq: Math 340. Solution of ordinary and partial differential equations corresponding to chemical engineering situations including classical, numerical and computer techniques. 3 lec.

413 Chemical Engineering Lab I—Digital Computers (1)

Prereq: 342. (winter) Lab emphasizing use of digital computers for chemical engineering calculations. 2 lab.

414 Chemical Engineering Lab II—Analog Computers (1)

Prereq: 413. (spring) Lab emphasizing use of analog computers for chemical engineering calculations. 2 lab.

415 Chemical Engineering Lab III (3)

Prereq: 343-344, sr rank. (fall) Lab practice to illustrate principles of selected unit operations, thermodynamics and applied kinetics; and to aid student in gaining confidence in handling of pilot plant equipment. Development of ability to devise and conduct chemical engineering experiments with minimum supervision and to report results satisfactorily stressed.

416 Chemical Engineering Lab IV (3)

Prereq: 415. (winter) Continuation of 415. See 415 for description.

417 Chemical Engineering Lab V (2)

Prereq: 415, 442. (spring) Lab course with emphasis on process control and simulation. 4 lab.

418 Chemical Engineering Lab VI—Materials (1)

Prereq: 331. (fall, winter, spring, summer) Demonstrations and experiments supporting relationships which exist between structure and properties of ceramic, metallic and polymeric materials. 3 lab.

419 Chemical Engineering Lab VII—Advanced Materials (1-2)

Prereq: with advanced materials courses or perm. Individual and small group investigation of advanced problems involving chemical, mechanical, physical or design parameters of materials, materials structure or fabrication. Investigations may involve ceramics, metal, polymers or composites. 2 lab for each hr of credit.

Engineering, Civil

421 Unit Processes (3)

Prereq: 344, with 344, or perm. (spring) Typical inorganic and organic processes, with emphasis on application of thermodynamic and kinetic theory and on raw material and energy sources, to design and lay-out of these processes. 3 lec.

430 Metallic Corrosion (3)

Prereq: 331. (fall) Basic principles of corrosion including electrochemical foundation, influence of environment, stress, strain and structure. Selected lab experiments. 3 lec.

433 Physical Metallurgy (3)

Prereq: 331. (winter) Mechanisms, kinetics and crystallography of reactions in metallic solids. Selected lab experiments for illustration of principles. 3 lec.

442 Process Control and Simulation (4)

Prereq: 343-344. (fall) Simulation and control of chemical processes. Both feedback and feed forward control are discussed. 3 lec, 2 lab.

443 Chemical Engineering Design (4)

Prereq: 343 and 344, or perm. (fall) Project work involving chemical process design, including analysis and extension of fundamental data by calculation, and an economic evaluation. Involves a trip, which usually lasts 3 days, to various chemical plants. Student responsible for his expenses on this trip. 3 lec.

444 Chemical Engineering Design (3)

Prereq: 443. (winter) Continuation of 443. See 443 for description.

445 The Application of Engineering Design to the Environment (3)

Prereq: 443 or perm. Use of chemical engineering fundamentals to approach a socially significant problem. Students expected to research problem and come up with definite specific solutions which they will then evaluate. 3 lec.

452 Introduction to Transport Phenomena (3)

Prereq: 343. Heat mass and momentum transfer from a theoretical basis. Presentation of boundary-layer theory and its comparison with other theoretical and semi-theoretical approaches. 3 lec.

460 Atmospheric Pollution Control (3)

Prereq: 303 or ME 321 or perm. Sources of air pollution from major industries, internal combustion engines and other sources. Techniques available for measuring particulate and gaseous pollutants in the atmosphere and at their sources. Techniques available for control

and future possibilities for control of air pollution. Bases for air pollution legislation. 3 lec.

471 Introduction to Polymer Properties (3)

Prereq: 331 or Chem 454 or perm. Intended to develop thorough understanding of what polymers are and why they possess unique properties. Properties such as molecular weight averages and distributions, solution properties and thermodynamics, melt order, rubber elasticity and transitional phenomena studied and related to ultimate physical and chemical properties. 3 lec.

474 Introduction to Polymer Engineering (3)

Prereq: 343 or CE 340 or perm. For students with little or no experience in production and fabrication of polymeric materials. Emphasis on subjects of melt rheology, extrusion and injection molding of polymeric materials.

477 Introduction to Polymer Synthesis (3)

Prereq: 331; and Chem 305 or perm. To develop a thorough understanding of mechanisms, kinetics and systems used for synthesis of polymeric materials. Effect of synthesis variations upon properties and reactor design also discussed.

480 Colloquium (1)

Prereq: sr rank. (winter) Lectures, mainly by speakers outside the engineering field, on cultural and professional subjects, with discussion moderated by the speakers. 1 lec.

490 Special Investigations (1-3, max 9)

Prereq: perm. Individual or small-group work, under staff guidance, in research or advanced study in a particular field of chemical engineering.

ENGINEERING, CIVIL

110 Plane Surveying (4)

Prereq: trigonometry. (fall, spring) Basic theory and field practice in measurement of distance, elevation and angle; introduction to photogrammetry. 3 lec, 3 lab.

210 Surveying II (3)

Prereq: 110. (spring) Triangulation; astronomical observations; special topics. 2 lec, 3 lab.

220 Statics (4)

Prereq: Math 263C or with Math 263C. (fall, winter, spring, summer) Laws of equilibrium of forces, friction, centroids and moment of inertia. Not open to srs. 4 lec.

222 Strength of Materials (4)

Prereq: 220, Math 263C or with 263C. (fall, winter, spring, summer) Elementary stresses and strains, torsion; flexure, including elastic curve equations; columns; combined stresses; stresses due to impact. 4 lec.

223 Strength of Materials Laboratory (1)

Prereq: 222 or with 222. Testing of various materials under axial compression, tension, flexure, torsion and impact. Use of electrical and mechanical strain measuring equipment. 2 lab.

311 Route Engineering (4)

Prereq: 110, nonmajors by perm. (winter) Horizontal and vertical curves; geometric design of highways; earthwork distribution; introduction to engineering economy. 4 lec.

321 Dynamics (4)

Prereq: 220, Math 263C. Motion of particles and rigid bodies, work and energy, impulse and momentum. 4 lec.

330 Structural Theory I (4)

Prereq: 222, computer science. (fall, spring) Structural theory, classical and modern methods of analysis including matrix methods with computer applications. 4 lec.

331 Structural Theory II (4)

Prereq: 330. (winter) Continuation of 330. 4 lec.

340 Fluid Mechanics (5)

Prereq: 321. Statics and dynamics of viscous and nonviscous fluids, dimensional analysis and similitude, 1-dimensional gas dynamics, pipe flow, principles of lift and drag, introduction to boundary layers. 5 lec.

341 Fluid Mechanics Laboratory (1)

Prereq: 340 or with 340. Laboratory techniques, calibration principles, fluid and flow measurements. 2 lab.

342 Applied Hydraulics (3)

Prereq: 340. (spring) Flow and pressure distribution in multi-loop networks, dynamics of flow in pumps and turbines, uniform and non-uniform flow in open channels, culvert hydraulics, hydraulic transients. 2 lec, 2 lab.

343 Hydrology (4)

Prereq: 340. (spring) Precipitation and runoff data; groundwater hydraulics; infiltration; peak runoff calculations. 3 lec, 3 lab.

361 Transportation Engineering (4)

Prereq: 311; ISE 405. (spring) Comparative analysis of various modes of transportation, with emphasis on inherent advantages and disadvantages of each; planning process applied to transportation facilities. 4 lec.

370 Soil Engineering (4)

Prereq: 222, Geol 283. (winter) Soil compositions, physical and chemical properties and classifications; water movement and seepage problems; consolidation and shear strength; applications to earth structures, retaining walls, slope stability, bearing capacity and settlement. May be taken as 570 for graduate credit except by civil engineers. 3 lec, 2 lab.

415 Photogrammetry (3)

Prereq: 210 or perm. (winter) Equipment and methods used in aerial photography and land measurement. 2 lec, 2 lab.

423 Continuum Mechanics (4)

Prereq: 321, Math 340. (spring) Deformation and flow of continuous media; laws of dynamics and thermodynamics; mechanical properties of fluids and solids; basic theories of continuum mechanics. 4 lec.

424 Strength of Materials II (3)

Prereq: 222. (fall) Theories of failure, unsymmetrical bending, shear center and other topics not covered in usual undergraduate course. 3 lec.

425 Advanced Strength of Materials (4)

Prereq: 222, Math 340. (fall) Advanced treatment of theories of failure, stresses and strains at a point, cross shear, unsymmetrical bending, curved beams, torsion, thick-walled cylinders, energy methods. Graduate-level course open to selected undergraduates. 4 lec.

426 Theory of Stability (3)

Prereq: 222. (winter) Buckling of columns, beam columns, plates and rings. 3 lec.

427 Experimental Stress Analysis (3)

Prereq: 424 or 524 or 525. (spring) Experimental methods of stress determination including photoelasticity, stress coat and electric strain gauge techniques; stress analogies; strain rosettes for combined stress determinations. Graduate-level course open to selected undergraduates. 2 lec, 2 lab.

428 Theory of Elasticity and Applications (3)

Prereq: 222, Math 340 and perm. (fall) Equations of equilibrium and compatibility; stresses and strains in beams, curved members, thick cylinders, torsion and structural members. Graduate-level course open to selected undergraduates. 3 lec.

429 Mathematical Theory of Elasticity (3)

Prereq: 428. (winter) Fundamental equations and problems of elasticity theory; methods of stress functions and displacement potentials; finite element applications. Graduate-level course open to selected undergraduates. 3 lec.

Engineering, Civil

432 Structural Design in Concrete (4)

Prereq: 222. (fall, winter) Analysis and design of reinforced concrete members and structures by elastic and ultimate-strength methods, prestressed concrete members. 3 lec, 2 lab.

433 Structural Design in Steel (4)

Prereq: 222. (fall, winter) Design of steel structures and structural components by elastic and plastic methods. 3 lec, 2 lab.

434 Structural Design II (3)

Prereq: 432, 433, 331 or with 331. (spring) Design of complete structures or major components of structures. 2 lec, 2 lab.

435 Advanced Structural Theory I (4)

Prereq: 331. (fall) Analysis of indeterminate structures by both classical and modern methods. Analysis of multistory bents, arches, closed rings and frames with variable cross-sections. Plastic theory and designs. 4 lec.

436 Advanced Structural Theory II (4)

Prereq: 435. (winter) Continuation of 435. Relaxation methods, matrix methods, shell structures. 4 lec.

437 Advanced Structural Design (4)

Prereq: 436. (spring) Modern design concepts and principles as applied to various construction materials. 4 lec.

443 Open Channel Hydraulics (3)

Prereq: 340. (spring) Principles of uniform and varied flow. Channel design for uniform flow, gradually varied flow profiles, channel transition, hydraulic jumps, flow in prismatic and nonprismatic channels. Graduate level course open to selected undergraduates. 3 lec.

446 Potential Flow Theory (3)

Prereq: 340 and/or perm. (fall) Inviscid flow theory. General equations of fluid dynamics, study of potential flow. Graduate-level course open to selected undergraduates. 3 lec.

447 Viscous Flow Theory (3)

Prereq: 340 and/or perm. (winter) Mechanics of fluid resistance, laminar and turbulent flow. Applications to external boundary layer flow and to flow in ducts. Graduate-level course open to selected undergraduates. 3 lec.

450 Water Treatment (3)

Prereq: 342-343. (fall) Sources and collection of public water supplies; principles of treatment processes. 3 lec.

451 Wastewater Treatment (3)

Prereq: 342, 343. (winter) Quantities and collection of municipal wastewater; principles of treatment processes. 3 lec.

452 Water and Wastewater Analysis (3)

Prereq: Chem 123. (fall) Laboratory methods and interpretation of results for chemical and bacteriological examination of water and wastewater. 2 lec, 3 lab.

455 Advanced Water Treatment (4)

Prereq: 450, 452, perm. (winter) Theory; design of treatment units; practice in control methods. 3 lec, 3 lab.

456 Advanced Wastewater Treatment (4)

Prereq: 451, 452, perm. (spring) Theory; design of treatment units; practice in control methods. 3 lec, 3 lab.

457 Water Resources Engineering (4)

Prereq: 343 and perm. (winter) Elective sr civil engineering course designed to provide an integrated treatment of water resources engineering, including hydrological measurements, runoff, groundwater, water law, reservoir design, frequency analysis, economics, planning, flood control and water quality control. Systems approach to multi-purpose water resource projects will be emphasized.

458 Water Quality Engineering (3)

Prereq: perm. (spring) Graduate level course open to qualified srs. Natural and man-made characteristics of water quality, changes in quality resulting from use, criteria for control of stream pollution, methods of improving water quality, also legal and economic aspects.

462 Traffic Engineering (3)

Prereq: 361, nonmajors by perm. (winter) Vehicle and driver characteristics, uses of traffic control devices, intersection design and capacity, parking characteristics. 3 lec.

463 Traffic Parameters (4)

Prereq: perm. (fall) Vehicle-highway relationships, including vehicle performance and highway geometry. Consideration of highway capacities and their influence on design.

464 Transportation Data Methods (4)

Prereq: perm. (winter) Introduction to traffic survey methods, data collection and evaluation. Topics include origin-destination, speed, parking, accident and future development studies.

465 Traffic Regulations and Controls (4)

Prereq: perm, 463. (spring) Typical traffic ordinances and regulations and their utilization to control traffic through use of signs, markings and control devices. Traffic signals, including their use as single units or as a progressive series.

467 Traffic Studies I (1-4)

Prereq: 464. (spring) Practical problems relating to traffic surveys and data analysis.

468 Traffic Studies II (1-4)

Prereq: 465. (winter) Practical problems relating to vehicular characteristics and traffic movements.

471 Foundation Engineering (3)

Prereq: 370, 432 recommended. (spring) Design and construction problems in soil engineering: subsurface investigation, retaining structures, slope stability, earth dams, foundations and field measurement. 3 lec.

472 Soil Mechanics I (3)

Prereq: 370. (fall) Water movement through soil, construction and interpretation of flow nets. Elastic equilibrium and stress distributions. Consolidation theories and settlement. 3 lec.

473 Soil Mechanics II (3)

Prereq: 472. (winter) Shearing strength. Plastic equilibrium, bearing capacity, lateral soil pressures and slope stability. 3 lec.

474 Soil Mechanics Laboratory (1)

Prereq: 472 and 473. (spring) Techniques of soil mechanics measurements. Shear test, pore pressure, volume change. Consolidation, permeability and capillarity; model tests. 3 lab.

475 Advanced Foundation Engineering (3)

Prereq: 472 and 473. (spring) Sub-structure analysis and design to meet various soil conditions. Settlement and bearing capacity analyses of various types of foundations and retaining structures. Case studies. 3 lec.

476 Soil Stabilization (4)

Prereq: 370. (fall) Engineering, geological and pedological soil classification systems. Mineralogy of clay minerals and clay-water systems; requirements for and factors affecting soil stability. Methods and mechanisms of soil stabilization; design and testing stabilized soils. 3 lec, 2 lab.

481 Pavement Design (3)

Prereq: 370. (fall) Types and uses of various paving materials and mixtures; theory and practice in design, construction and maintenance of various types of highway and airport pavements. 2 lec, 2 lab.

482 Bituminous Paving Materials and Mixtures (3)

Prereq: perm. (winter) Types, constituents, chemical behavior, tests, specifications and uses of bituminous materials and aggregates in pavements. Design and manufacture of bituminous paving mixtures and construction of bituminous pavements. 2 lec, 3 lab.

483 Principles of Pavement Design (3)

Prereq: 370. (spring) Fundamentals of wheel loads and stresses in pavements. Properties in pavement components and tests. Design methods and evaluations. 3 lec.

490 Special Investigations (1-5)

Prereq: perm. (fall, winter, spring, summer) Special investigation or problem not covered by formal courses. Permits well-qualified student to pursue individual study under direction of faculty member.

ENGINEERING, ELECTRICAL

210 Circuit Analysis I (3)

Prereq: Math 263C or with Math 263C. (fall, winter) Electric circuit analysis. Circuit elements, Kirchoff's laws, resistive network equations and theorems, I-D equations for circuits with resistance, inductance and capacitance, simple transients. 3 lec.

211 Circuit Analysis II (3)

Prereq: 210 and Math 263C, or with Math 263C. (winter, spring) Continuation of 210. Periodic functions, average and effective values. Fourier series, complex numbers, phasors, impedance function, sinusoidal steady state response, loop and nodal equations, network theorems, power, polyphase circuits. 3 lec.

212 Circuit Analysis III (3)

Prereq: 211 and Math 340, or with Math 340. (fall, spring, summer) Continuation of 211. Exponential excitation, poles and zeroes, Laplace transforms, transients, relation of transient to steady state response, I-D equations and responses for simple mechanical systems, magnetic circuits. 3 lec.

220 Instrumentation and Computation Laboratory I (3)

Prereq: 210 or with 210 or perm. (fall, winter) Theory and applications of laboratory instruments. Laboratory experimentation. Fundamentals of analog and digital computation.

221 Instrumentation and Computation Laboratory II (3)

Prereq: 220, 211 or with 211 or perm. (winter, spring) Theory and applications of laboratory instruments. Laboratory experimentation. Fundamentals of analog and digital computation.

**222 Instrumentation and Computation
Laboratory III (3)**

Prereq: 221, 212 or with 212, Math 340 or perm. (fall, spring, summer) Theory and applications of laboratory instruments. Laboratory experimentation. Fundamentals of analog and digital computation.

232 Analytical Foundations of Electrical Engineering (5)

Prereq: 212 or with 212, Math 340, or perm. (spring, summer, fall) Vector analysis with applications to electromagnetic fields. Matrix theory with applications to state variable formulation of linear and nonlinear systems. Complex variable theory with applications to systems, in preparation for Laplace transforms, Z-transforms, Nyquist criterion, etc. Special analytical techniques for the solution of complex electrical engineering problems with emphasis on computer-oriented techniques.

301 Intermediate Laboratory I (1)

Prereq: 222 or perm. (fall, winter, spring, summer) Intermediate laboratory provides student with opportunity to formulate his own experiments and perform them on an open shop basis. Experiments must receive faculty approval as to content and area of investigation and results presented in written report. This lab sequence must be taken concurrently with required 300-level lecture courses.

302 Intermediate Laboratory II (1)

Prereq: 301. (fall, winter, spring, summer)
See 301 for description.

303 Intermediate Laboratory III (1)

Prereq: 302. (fall, winter, spring, summer)
See 301 for description.

304 Basic Electrical Laboratory I (1)

Prereq: 313, or with 313. (fall, winter, spring, summer) Lab supplement to 313. Basic instruments and circuit measurements. 2 lab.

305 Basic Electrical Laboratory II (1)

Prereq: 304 and 314, or with 314. (fall, winter, spring, summer) Lab supplement to 314. Operation of electronic devices, transformer and rotating machines. 2 lab.

310 Linear Systems and Networks I (3)

Prereq: 212. (fall, winter) Integrodifferential equations as models of systems, Laplace transformation and associated theorems, electrical, mechanical and electro-mechanical systems, analogs, signal flow graphs.

311 Linear Systems and Networks II (3)

Prereq: 310. (winter, spring) State variables, matrix formulation of nodal and loop systems

of equations in complex frequency domain, network theorems, functions, poles and zeros, natural and forced responses, time domain response and location of poles and zeros, stability, 2-port parameters, frequency response plots, Fourier series and integrals.

312 Linear Systems and Networks III (4)

Prereq: 311. (fall, spring, summer) Properties of driving point functions, 1-port synthesis, image parameters, filters, transmission lines.

313 Basic Electrical Engineering I (3)

Prereq: Math 340, or with 340. D.C., steady-state single phase A.C., balanced polyphase and magnetic circuits. Not open for credit to electrical engineering majors. 3 lec.

314 Basic Electrical Engineering II (3)

Prereq: 313. Electronic devices, models, transformers and steady state performance of rotating machines. Not open for credit to electrical engineering majors. 3 lec.

321 Electromagnetics and Materials I (4)

Prereq: 212, 232. (winter, spring) Introductory treatment of static electric and magnetic fields in free space and stationary matter based on Maxwell's equations and physical properties of fields, charges and currents. Included are: electromagnetic field vectors and field equations, boundary conditions, Poisson's equation, solutions of Laplace's equation for scalar electric and magnetic potentials, vector potential, polarization and magnetization charges and currents and a unified macroscopic treatment of fields in matter. Electromagnetic energy and power.

322 Electromagnetics and Materials II (4)

Prereq: 321. (spring, summer, fall) Continuation of 321. Discussion of time-varying electromagnetic fields. Application of field theory to solution of problems from various branches of electrical engineering with emphasis upon physical interpretation. Included are: relation of field theory to circuit theory, Poynting's theorem, stored energy and power flow, complex fields and power, TEM waves, transmission line theory, uniform plane wave, wave reflection and refraction, simple wave guides, resonant cavities and dipole radiation.

330 Energy Conversion I (4)

Prereq: 212. (fall, winter) Principles of energy conversion utilizing both electrostatic and electromagnetic forces. Properties of magnetic materials including study of eddy-current and hysteresis effects. Single phase and polyphase transformers theory and applications.

331 Energy Conversion II (4)

Prereq: 330. (winter, spring) Revolving field theory; polyphase induction motors including motor theory and equivalent circuits. Synchronous alternator and motor theory including synchronous condenser applications for power-factor correction.

332 Energy Conversion III (2)

Prereq: 331. (spring, summer) Single phase electromagnetic energy converters. Includes double revolving field theory and its application to shaded pole, split phase and repulsion-induction induction motors, universal motor and single phase synchronous motor.

340 Electronics I (4)

Prereq: 212, 222 or with 222. (fall, winter) Fundamentals of electronic circuit analysis and design utilizing diode, FET, BJT and vacuum tube; emphasis on graphical techniques and concepts of small-signal linear circuit models; introduction to internal physics of each device studied.

341 Electronics II (4)

Prereq: 340, 222. (winter, spring) More elaborate linear amplifier circuits including multi-stage amplifiers and feedback, frequency characteristics and stability, tuned amplifiers and power amplifiers; emphasis given to design of these circuits; discussion of integrated circuits introduced whenever appropriate.

342 Electronics III (2)

Prereq: 341. (spring, summer) Continuation of 341, including waveshaping and switching circuits; circuits involving negative-resistance devices including tunnel diode, UJT and SCR introduced.

401 Advanced Laboratory I (1-3)

Prereq: 303 or perm. (fall, winter, spring, summer) Advanced lab format follows that of the intermediate lab. Student-proposed projects are design- or research-oriented and are directed by a faculty member specializing in area of the investigation. Portion of this lab required in conjunction with certain electrical engineering 400-level lecture courses. Student taking 400-level electrical engineering courses must register for minimum of 1 credit hr of advanced lab per qtr—5 credit hrs of advanced lab required for graduation.

402 Advanced Laboratory II (1-3)

Prereq: 303. (fall, winter, spring, summer) See 401 for description.

403 Advanced Laboratory III (1-3)

Prereq: 303. (fall, winter, spring, summer) See 401 for description.

405 Physical Electronics (3)

Prereq: 322 and 341. (winter) Preparation for subsequent detailed study of solid-state devices, gaseous and quantum-electronic devices, intended to provide suitable depth of background in selected pertinent areas of electrical science.

406 Advanced Electronic Circuits I (3)

Prereq: 342. (fall) Introduction to design and applications of linear integrated electronic systems. Operational amplifiers, differential amplifiers with applications in transfer function synthesis using RC active synthesis. Communications devices including amplification, modulation, mixing and detection systems using integrated devices.

407 Advanced Electronic Circuits II (3)

Prereq: 342. (winter) Large signal switching circuits. Pulse and digital circuits used in logic systems. Memories, shift registers, counters, decoders, interfaces and elementary timing devices.

408 Advanced Electronic Circuits III (3)

Prereq: 406, 407. (spring) Analysis of electronic systems which are not strictly linear. Analysis and stabilization of oscillators and timing circuits using describing function techniques and phase plane analysis. Parametric amplifiers and other low noise amplifiers. Voltage controlled oscillators and phase locked loops. Large signal amplifiers.

409 Solid-State Instrument Design (3)

Prereq: 341. Electronic instruments and instrument subassemblies including amplifiers, wave form generators, oscilloscopes, TVMs, etc., using various solid-state devices such as diodes, transistors, unijunctions, FETs and integrated circuits.

411 Network Synthesis I (3)

Prereq: 312. (fall) Theory of network design. Positive real functions, synthesis of general passive 1-port, approximation, parts of network functions.

412 Network Synthesis II (3)

Prereq: 411. Continuation of 411. (winter) Properties of 2 port functions, realization of 2 ports with 2 kinds of elements, insertion-loss synthesis, approximation, filter design.

425 Automatic Control I (3)

Prereq: 312 or with 312. (fall) Formulation of linear models for lumped-parameter physical systems; Z-transform theory; fundamental principles of closed-loop discrete and continuous control; signal flow graph representation of discrete and continuous system equations; Routh-Hurwitz and Jury stability criteria; time domain performing specifications.

426 Automatic Control II (3)

Prereq: 425. (winter) Root locus; cascade and feedback compensation; Nyquist stability criterion; Bode plots and Nichols charts; frequency domain performance specifications; plant identification; minimal prototype design; analog and digital computer-aided design of discrete and continuous control systems.

427 Automatic Control III (3)

Prereq: 426. (spring) State variable theory for discrete and continuous systems; controllability and observability; integral performance criteria; basic optimal control theory.

440 Microwave Theory and Devices (3)

Prereq: 322 or perm. (fall) Generation and transmission of electromagnetic energy above 30 MHz. Discussion of klystrons, magnetrons, solid-state sources, waveguides and resonators including lab demonstrations and experiments.

441 Antennas (3)

Prereq: 322 or perm. (winter) Theory of radiating structures, analysis and synthesis of arrays, impedance, radiation patterns, gains and discussion of selected practical examples.

442 Introduction to Radar and Aircraft Navigation Systems (3)

Prereq: 322 or perm. (spring) Microwave radar as applied to aviation requirements of surveillance, approach and landing, weather avoidance; discussion of VOR, DME, RNAV, ILS, ADF, Loran, Omega.

443 Electromagnetics I (3)

Prereq: 322, Math 340. (fall) Mathematical review of vector operations in Cartesian and curvilinear coordinates. Solution of wave equation in Cartesian coordinates and application to wave reflection from interfaces between general media. Decomposition of wave solutions into TE, TM and TEM waves, with application to waveguides and transmission lines; solution of wave equation in cylindrical coordinates, with application to circular waveguide radiation from line sources and scattering from cylindrical objects.

450 Control of Electrical Machinery (3)

Prereq: 332. Magnetic and electronic motor controllers including study of control theory and application to given problems.

451 Symmetrical Components (3)

Prereq: 331. (winter) Circuits analysis by symmetrical components, representation of unbalanced polyphase currents and voltages by component symmetrical sets, solutions of faults on power systems, unbalanced operation of power equipment, single phase induction motor analysis.

452 Power Transmission (3)

Prereq: 332. (fall) Economic and electrical principles of electrical power lines, mechanical principles of transmission line design.

453 Power Distribution (3)

Prereq: 451. (spring) Fault current calculations and automatic fault isolation on a coordinated distribution system, study of relays, reclosers, sectionalizers and fuse coordination, load and voltage studies of distribution, radial and network systems.

454 Electrical Design (3)

Prereq: 332. Design relationship of electrical machinery, including design of machine and predetermining of its performance.

458 Power System Stability Studies (3)

Prereq: 332. (spring) Problems pertaining to stability of large power systems, both synchronous and asynchronous loadings, maximum use of digital computer techniques and matrix algebra. Each student will present paper on individually assigned problems.

460 Hybrid Computation and Digital Simulation (3)

Prereq: sr rank. (fall, winter) Solutions of problems on analog/digital computers and on analog computers with programmable logic. Digital simulation languages. Solutions of engineering problems by digital simulation.

461 Digital Systems I (3)

Prereq: 341. (fall) Postulates and fundamental theorems of Boolean algebra; algebraic and map methods for design of combinational logic and simple sequential circuits; logic minimization methods; introduction to system design using shift registers, counters, etc.

462 Digital Systems II (3)

Prereq: 461. (winter) Basic concepts from theory of finite-state machines; analysis and synthesis of sequential circuits; study of state assignment; synchronous and asynchronous machines; system design using integrated circuit registers, counters, etc.

463 Digital Computer Design (3)

Prereq: 462. (spring) Functional organization of digital computers for control and data processing, definition of functional characteristics of subsystems, study of current computer component technology. Several types of machines designed in varying degrees of detail.

468 Communication Engineering (3)

Prereq: 342. (winter) Unified approach to communications stressing principles common to all transmission systems. Review of Fourier

series. Fourier integral and complex frequency techniques with emphasis on communication networks, time response and convolution, measurement of information, amplitude modulation (double and single sideband techniques), frequency modulation, sampling theory, pulse modulation systems, fundamentals of random signal theory and its application to communication systems, noise and its effect on conventional modulation systems; noise figure, noise suppression techniques and other related topics.

469 Statistical Analysis (3)

Prereq: 312. (fall) Analysis of engineering problems using probabilistic and statistical concepts: probability, discrete and continuous random variables, distribution functions, means, moments, characteristic functions, statistical independence, correlation, estimation, stochastic processes and applications to engineering problems.

488 Analysis of Engineering Problems (3)

Prereq: perm. Basic philosophy, methodology and viewpoint developed for solution determination. Comparison made for applicability of empirical and theoretical analytical techniques to both linear and nonlinear situations. Characterization via mathematical models utilized for problem synthesis. Trade-off studies as practical technique for parameter value selection and influence-effect relationships.

490A Space Communications (3)

Prereq: 303, 312, 322, 342 or perm. (summer) Communications links with examples taken from space applications. Includes considerations of data encoding, modulation technique, antenna gains, space loss, system noise and demodulation techniques.

490B Foundations of Optimization Theory (3)

Prereq: FORTRAN IV, sr rank. (no regular schedule) Optimization of finite-dimensional nonlinear objective functions with constraints. Solution techniques include Newton-Raphson, steepest descent, conjugate gradient and Davidson's method. Several algorithms are introduced for the solution of problems having closed feasible regions defined by inequality constraints such as penalty function methods.

490E Random Signals in Linear Systems (3)

Prereq: 468, 469. (no regular schedule) Introduction to random electrical signals and noise. Autocorrelation, crosscorrelation, power spectra, N^{th} law detectors, matched filters, detection of signals in noise, optimum receivers, Bayes estimators, digital filtering.

490F Topics in Space Science (3)

Prereq: 469 or Math 450B and 322 or Phys 322. (no regular schedule) Introduction to topics in solar system space science and astrophysics. Remote and direct sensing techniques, instrumentation and data analysis. Specific topics include: large aperture antennas, radiometers, radio wave propagation in atmospheres and ionospheres, thermal and non-thermal radiation mechanisms, elements of data acquisition and processing, parameter estimation and interaction and generation of radio waves in the solar system.

490G Direct Energy Conversion (3)

Prereq: 322 and 341, Phys 253 or 316. (no regular schedule) Brief review of solid state and thermodynamic theories. State of the art study of thermal-electric and thermionic energy converters, fuel cells, solar cells and magnetohydrodynamic generators.

490H Propagation of Radio Waves (3)

Prereq: 321, 322. (no regular schedule) Review of fundamentals of electromagnetic waves, ground wave propagation, surface wave, wave propagation in ferrites, properties of ionosphere and sky wave propagation.

490I Introduction to Plasma Dynamics (3)

Prereq: 321, 322. (no regular schedule) Review of electromagnetic theory, motion of charged particles in given electromagnetic fields. Magnetoionic theory, propagation and excitation of waves in plasma.

ENGINEERING GRAPHICS

101 Engineering Drawing (3)

Beginning course for students of engineering and technology and related fields: basic techniques, processes and standards, multiview drawing, freehand drafting, fundamentals of dimensioning, auxiliary views, section views and sectional assemblies. 5 lec.

102 Engineering Drawing (3)

Prereq: 101. Basic engineering drawing: pictorial drawing, freehand drawing, developments and intersections, dimensioning, working drawings, elementary design problems. 5 lec.

103 The Slide Rule (1)

Prereq: Math 115 or perm. Slide rule computations involving multiplication and division, simple powers and roots, trigonometric functions, vectors, logarithms, fractional powers and roots of numbers. Modern 10" Log Log duplex decitrig slide rule required. 1 lec.

121 Descriptive Geometry (3)

Prereq: 101 or perm. Graphical solutions of problems relating to points, lines, planes and solids. Space visualization pertaining to intersections of planes and solids. Exercise sheets, and practical applications. 5 lec.

122 Nomography (2)

Prereq: Math 115 or perm and 101. (winter) Fundamentals of using conversion scales, alignment diagrams and proportional charts in graphical solution of equations. 3 lec.

315 Technical Drawing (3)

Prereq: 101, 102, IndT 216 or perm. Standard and basic drawing representations as applied to industrial products and processes with special emphasis on detail and assembly drawing. 6 lec. Replaces EG 115.

ENGINEERING, INDUSTRIAL AND SYSTEMS

231 Introduction to Industrial and Systems Engineering (2)

Prereq: Math 263A. (fall, spring) Overview of history and function of industrial engineering. Criteria, modes of analysis, measures of system performance and organization of engineering functions examined. 2 lec.

333 Work Design I (5)

Prereq: 405 or equiv. (winter) *C. Overby*. Design of work systems and measurement of work. Applications of statistics to data collected from the real world and from laboratory experiments. Models of work systems, schematic models and charting techniques, work sampling, time study, predetermined time systems, standard data and related industrial tools. 3 lec, 4 lab.

405 Engineering Statistics I (3)

Prereq: Math 263C. (fall, winter, spring, summer) Application of probability and statistics to evaluation of experimental data. Introduction to testing hypotheses, confidence levels and statistical prediction. 3 lec.

406 Engineering Statistics II (3)

Prereq: 405. (winter, spring) Evaluation of numerous probability distribution functions for discrete and continuous random variables as useful experimental engineering tools. Multiple linear and nonlinear regression models for experimental systems. Study of variances and means of characteristic system factors and their significance in model definition. 3 lec.

407 Engineering Statistics III (3)

Prereq: 405. (spring) Design and analysis of engineering experiments approached from linear statistical model point of view. Blocking designs, full and fractional factorial designs, analysis of variance and introduction to response surface methodology. 3 lec.

410 Decision Theory I (3)

Prereq: 405, 430, Math 263C. Introduction to decision theory and its applications. Modern utility theory and its application to decision making under risk emphasized. Examples from inventory, bidding, purchasing, maintenance and investment policies.

411 Decision Theory II (3)

Prereq: 410. Basic theory and applications of Bayesian decision theory. Emphasis on applications covering wide range of both profit and nonprofit oriented institutions in society.

415 Introduction to Systems Engineering (3)

Prereq: perm. *E. Gamble*. Summary of systems engineering techniques. Beginning course for systems engineers; survey course for others. 3 lec.

417 Analytical Foundations of Industrial and Systems Engineering (3)

Prereq: 405, Math 263C. Special analytical techniques introduced for solution of complex industrial and system engineering problems. Calculus of finite differences, Fourier analysis and use of transform techniques in linear system analysis discussed. Probability implications of transforms emphasized.

420 Analysis of Engineering Situations I (3)

Prereq: Math 263C, Math 113A or perm. (winter) *E. Gamble*. Basic philosophy, methodology and viewpoint for definition and solution of engineering problems. Effects of bounding conditions and role of judgment included. 3 lec.

421 Analysis of Engineering Situations II (3)

Prereq: 420. (spring) Continuation of 420. See 420 for description.

424 Nonlinear Analytical Techniques (3)

Prereq: 420, 421 or perm. *E. Gamble*. Nonlinear phenomena and classification of singularities. Role of forcing function. Solutions found through methods of residues and variation of parameters. Applications to adaptive controlled systems and optimal controlled systems and other organized structures. 3 lec.

425 Statistical Design and Analysis of Controlled Systems (4)

Prereq: 405. *E. Gamble*. Applied statistical techniques in selective design and evaluation of physical and nonphysical systems. Tolerances, errors and variations in parameters of systems viewed in terms of probabilistic distributions and effects in output parameters. Value standards such as reliability and maintainability of equipment and man-machine systems treated statistically. 3 lec, 2 lab.

427 Digital Computer Systems I (3)

Prereq: sr rank in engineering or science or perm. (fall) Overview of digital computer systems. Programming, storage organization and search. Number representations, conversions and elementary arithmetic operations. Addressing and instruction sequencing. Multiprogramming, multiprocessing and real-time systems.

428 Digital Computer Systems II (3)

Prereq: 427 or perm. (winter) Continuation of 427. See 427 for description.

430 Engineering Economy (3)

(fall, spring) Economic analysis of engineering projects. Topics include time value of money, cost estimation, equipment comparison, breakeven analysis, economic lot size and replacement analysis. 3 lec.

431 Advanced Engineering Economy (3)

Prereq: 430, 405. (winter) Continuation of 430. Element of risk explicitly treated by consideration of uncertainties of cost estimates, forecasting and other economic variables. Emphasis placed on construction and use of mathematical models for analysis of engineering alternatives. 3 lec.

432 Inventory and Manufacturing Control I (3)

Prereq: 405, FORTRAN. (fall, winter) *D. Scheck*. Design of inventory and manufacturing control systems. Forecasting, continuous and periodic review inventory systems. Relationship between production schedules and inventory. Production scheduling systems; sequencing models; dispatching rules. 3 lec.

433 Industrial Computer Applications (3)

Prereq: 405, FORTRAN. (fall, spring) Simulation of industrial problems utilizing digital computers and data processing equipment. Stresses user-oriented programs and advanced format techniques. Applications include use of library routines. 2 lec, 2 lab.

434 Network Analysis (3)

Prereq: 405. (fall, spring) Engineering project-planning using such techniques as PERT and critical-path method. 3 lec.

435 Quality Control and Reliability (3)

Prereq: 405. (fall, spring) Industrial techniques for process control, acceptance sampling by attributes and variables, inspection and test methods, operating characteristics and design of sampling plans. 3 lec.

439 Information Systems Engineering (3)

Prereq: 405, 433 or equiv. (spring) Design of industrial information systems. Storage, retrieval and transmission by automatic data processing equipment is considered.

440 Industrial Plant Design (3)

Prereq: 333, 430, FORTRAN. (fall, winter) *D. Scheck*. Design process for manufacturing systems. Process planning, equipment selection, jig and fixture design, plant capacity analysis, production scheduling, inventory control, line balancing, plant layout. 2 lec, 2 lab.

441 Introduction to Operations Research (3)

Prereq: 405, 430, FORTRAN. (winter, spring) Basic methodology of operations research in solution of industrial, engineering and other problems. Emphasis on applications and mathematical structure of such topics as inventory models, queuing theory, sequencing and linear programming. 3 lec.

442 Inventory and Manufacturing Control II (3)

Prereq: 432 or perm, FORTRAN. (spring) *D. Scheck*. Branch and bound scheduling algorithms, horizon planning, control of integrated production, inventory and workforce systems, linear decision rules. 3 lec.

443 Work Design II (3)

Prereq: perm. (spring) Exploration of interaction between industrial and systems engineering and labor as an institution. Arbitration, technological change and work organization. 3 lec.

444 Applications of Mathematical Programming (3)

Prereq: perm. (spring) Linear systems techniques for optimum solution of industrial, engineering and other problems. Topics include assignment problem, transportation problem, simplex method, approximate methods, dual problem, sensitivity analysis. 3 lec.

445 Systems Design (3)

Prereq: 440. Individual or small-group system design project.

447 Elements of Behavior Systems Engineering (3)

Prereq: perm. (fall) *J. Fink*. Elements of behavior systems analysis, prediction, design and control. Properties of stimulus-response reflex as behavior system input-output function examined. 3 lec.

448 Man-Machine Systems (3)

Prereq: perm. (fall, winter) *J. Fink, C. Overby*. Role of human operator as subsystem in complex man-machine system. Optimum design principles for information displays, equipment controls, work-place environments and life-support systems are examined. 3 lec.

449 Behavior Systems Management in Engineering Industry (3)

Prereq: perm. (winter) *J. Fink*. Applies principles of behavior systems engineering to problems of engineering management. Behavior systems analysis of engineering organization structure and function with respect to problems of prediction, design and control of engineering outputs. 3 lec.

470 Seminar on Occupational Safety and Health (2)

Prereq: perm. Occupational safety and health treated historically outlining development of Workman's Compensation, and industrial safety up to most recent federal legislation, 1970 Safety and Health Act. Focus given to specific health and safety problems with view toward developing engineering and human factors controls.

472 Seminar on Air Transportation Systems (2)

Prereq: 405. Air traffic control processes and problems in terminal and enroute situations, ground facilities systems analysis and design and other current topics with emphasis on industrial and systems engineering approaches to analysis and design. Topic concentration varies from qtr to qtr.

480 Colloquium (1)

Prereq: sr rank. (winter) Series of lectures mainly by speakers outside engineering field, on cultural and professional subjects, with discussion moderated by speaker.

489 Special Investigations (1-6)

Prereq: perm.

490 Advanced Problems in Computer Applications (1-6)

Prereq: perm. Special investigations of advanced industrial and systems engineering problems involving use of digital or analog computers.

ENGINEERING, MECHANICAL

Mechanical engineering emphasizes machine design and thermal engineering. The work of the first two years is general and fundamental and parallels that in the other engineering curricula. The work of the last two years is comprehensive. It includes courses in the theory and design of machines and mechanical equipment, systems analysis and control and in thermodynamics and its applications. To give a well-rounded curriculum, work is included in other fields of engineering, such as fluid mechanics and electrical engineering. Specialization is provided for by elective courses.

301 Dynamics of Machinery (5)

Prereq: CE 321. (winter) Kinematic analysis and design of mechanisms, and mechanical trains. Force and energy analysis in machines. Critical speeds and engine balancing.

313 Metal Processing (3)

Prereq: CE 220. (fall, spring) Structure of metals, mechanics of metal cutting. Friction, lubrication and wear, cutting fluids, unconventional methods of machining, economics.

321 Introduction to Thermodynamics (4)

Prereq: Phys 251, Math 263A, B, C. Basic engineering thermodynamics. Definitions, first law, properties and property relations, second law, availability, applications to engineering problems.

322 Introduction to Thermodynamics Lab (1)

Prereq: 321 or with 321. Instruments and measurements, applications to simple thermal machines. Comparison of measurements with theory, elementary computer simulations. Report writing.

327 Steam Power Plants (3)

Prereq: 321. (fall) Fuels, principles of combustion, stationary boilers, grates, stokers, furnaces, coal pulverizers, economizers, preheaters, super-heaters, stacks, forced and induced draft, boiler-feed pumps, steam engines and turbines and condensers. 3 lec.

328 Applied Thermodynamics (5)

Prereq: 321. (winter, spring) Nonreactive and reactive mixtures, compressors, analytical studies of gas and vapor power cycles, and refrigeration. 5 lec.

330 Applied Thermodynamics Lab (2)

Prereq: 322, 328. Sr lab course involving more complex experiments on steam turbines, boilers, combustion, pumps, air compressors, heat transfer and refrigeration. Two 2-hr sessions per wk.

401 System Analysis and Control (4)

Prereq: Math 340. (fall, spring) Physical modeling, formulations and responses of mechanical, electrical, hydraulic and thermal dynamic systems. Fundamental theory of automatic controls and applications.

402 Fluid Mechanisms and Controls (3)

Prereq: perm. (spring) Fluid mechanics associated with fluid control, survey of flow control devices, fluid amplifier principles, digital logic, analysis and synthesis of fluid control systems.

403 Machine Design I (4)

Prereq: 313, ChE 331, 418, CE 222, 223. Applications of mechanics, mechanisms, materials and mechanical processes to design and selection of machine members and units of power transmission. Emphasis on design based on failure criteria rather than analysis, and with consideration for production processes and economics.

404 Machine Design II (5)

Prereq: 403. (spring) Application of logical methods and approaches used to define engineering problems and design procedures for obtaining solutions in areas such as engineering materials (including residual stresses), design of machine elements, dynamics, vibrations, fluid dynamics and thermodynamics. Emphasis on inventiveness, engineering analysis and decision making. 5 lec.

407 Fundamentals of Nuclear Engineering (4)

Prereq: perm. (spring) Nuclear engineering, including nuclear reactions, radiation detection and measurement, reactor criticality, principles of reactor control, radiation shielding, effects of radiation on materials, uses of radioactive materials.

411 Cryogenic and Vacuum Fundamentals (4)

Prereq: 321, 412. (arranged) Production of low temperatures and pressures, molecular transport, diffusion through solids, radiation heat transfer, high-performance insulators, low-temperature heat transfer, 2-phase flow, superconductivity.

412 Heat Transfer (5)

Prereq: 321, CE 340. (fall, winter) Basic concepts of conduction in 1 or more dimensions, steady and transient modes. Radiation, fundamentals of convection in various modes, heat exchanger design. 5 lec.

417 Design of Thermal Systems (4)

Prereq: 321, 328, 412. (arranged) Design of systems in which thermodynamics and heat

and mass transfer are major considerations. Emphasis on total design approach including factors such as cost and reliability. Typical systems include power, propulsion, environmental, cryogenic.

418 Mechanical Engineering Experimentation (1)

Prereq: ME sr or grad rank. (fall) Instruction in experimental procedure and experience in designing and executing lab experiments. Students plan and execute their own experiments to acquire answers to assigned problems. Variety of areas covered including control systems, energy conversion, fluid flow, heat transfer, motion measurements, stress-strain. Instructional guidance provided by entire mechanical engineering staff. Provides familiarity with variety of instrumentation and procedures. 3-qtr sequence with experimental subjects phased with prerequisites.

419 Mechanical Engineering Experimentation (1)

Prereq: ME sr or grad rank. (winter) Continuation of 418. See 418 for description.

420 Mechanical Engineering Experimentation (1)

Prereq: ME sr or grad rank. (spring) Continuation of 419. See 418 for description.

424 Gas Dynamics I (3)

Prereq: CE 340 or perm. (winter) 1 and 2 dimensional compressible flow-isentropic flow, flow with heat transfer, friction, shocks, generalized 1-dimensional flow. Applications to propulsion systems. 3 lec.

425 Vehicle Propulsion Systems (4)

Prereq: 424. Applications of basic engineering disciplines to design and analysis of air and ground vehicle propulsion systems. Extensive use of digital computers. Term report required.

440 Coupled Thermal/Electrical Behavior and Devices (4)

Prereq: 321, 412, Phys 316. (arranged) Coupled flows, irreversible thermodynamics, behavior of ionized gases, general principles of unconventional thermodynamic cycles, thermoelectricity, thermionics, MHD, fuel cells.

484 Problems in Thermal Machinery (3)

Prereq: perm, good academic record. (arranged) Research in thermal machines. Individual work on experimental or analytical project involving current problems. Training in use of library, theory and use of instruments, error analysis, planning of experiments, effective report writing. Students should elect 2-term sequence to allow adequate time for completion of meaningful project. Report required.

485 Problems in Thermal Machinery (3)

Prereq: perm, good academic record. Continuation of 484. See 484 for description.

486 Problems in Thermal Machinery (3)

Prereq: perm, good academic record. Continuation of 484-485. See 484 for description.

489 Special Investigations (1-6)

Prereq: perm.

491 Mechanical Vibrations I (3)

Prereq: Math 340, CE 321, srs, grad. (fall, spring) Characteristic phenomena of mechanical vibrations encountered in machines and structures (of 1-degree of freedom) in their quantitative investigation. Simple harmonic motion; free, transient and forced vibrations; application of phase-plane methods; damping effects; mobility method; analog computation. 2 lec, 2 lab.

492 Mechanical Vibrations II (4)

Prereq: 491. (winter) Application of matrix methods; 2-degree of freedom systems; lumped mass systems with several degrees of freedom, and methods for normal mode determination. 4 lec.

493 Lubrication and Bearing Analysis (3)

Prereq: perm. (arranged) Concepts of boundary, hydrostatic and hydrodynamic lubrication. McKee, and Boyd and Raimondi methods. Solid lubrication, porous bearings, gas bearings and lubrication in living and artificial human joints.

494 Advanced Machine Design (3)

Prereq: 403, perm. (arranged) Advanced considerations in design and analysis of machine members, including residual stresses and fatigue in metals, stress propagation and creep. 3 lec.

495 Introduction to Kinetic Theory and Statistical Thermodynamics (4)

Prereq: perm. (fall). Kinetic theory, classical and quantum statistical mechanics with application to engineering devices. 3 lec.

496 Experimental Methods in Design (3)

Prereq: 403, perm. (arranged) Investigation and evaluation of experimental methods that may be used to obtain design and performance data. Techniques of photoelasticity, strain measurements and vibration measurement.

497 Methods of Engineering Analysis I (4)

Prereq: Math 340 or perm. (arranged) Methods of analyzing equilibrium and eigenvalue problems in mechanical engineering and engineering mechanics; matrix methods, variational methods, numerical methods.

ENGLISH

English Language and Literature Humanities

The major requirement for the AB degree consists of a minimum of 45 hours, including the following: a) 301 or 302 or 303, b) 307 or 351 or 352, c) 311 or 312, d) 313 or 314, e) 321 or 322 and f) one 400-level course. Completion of these courses automatically completes the Arts and Sciences College requirement of nine hours in the major at the junior-senior level.

Students wishing to major in creative writing will take a maximum of 20 hours of creative writing, 10 hours of which will be *in addition to* the regular requirements for the English major. At the discretion of the director, a student may substitute five hours of 308, Advanced Composition, for five hours of creative writing.

Honors work in English: see "Departmental Honors" under Honors College. For general English requirements, see page 89.

English Language and Literature

160 English for Foreign Students (5)

Prereq: nonnative speakers of English only, perm (adequate proficiency). Principles and practice of close reading and writing of non-literary prose. Student reads examples of description, exposition and argumentation. Reading practice focuses on developing skill in recognition of features of form and style characteristic of these types of written English necessary for satisfactory comprehension. Writing practice progresses from paragraph length composition to longer essays. Emphasis on mastery of principles of organization and development of ideas and expression in acceptable English idiom and style.

177 Literary Themes (5)

Prereq: fr and soph only. Universal themes in fiction, poetry and drama of all ages. Guidance in critical thinking, reading and writing about those themes and works in which they find expression.

178 Literary Themes (5)

See 177 for description.

179 Literary Themes (5)

See 177 for description.

187 Contemporary Issues (5)

Prereq: fr and soph only. Modern themes and problems which find expression in literature and thought of 20th century. Guidance in critical thinking, reading and writing about those themes and problems.

188 Contemporary Issues (5)

See 187 for description.

189 Contemporary Issues (5)

See 187 for description.

H197 Freshman Honors Seminar (5)

Prereq: admission to Honors College. Literature and writing—introduction in continuing discourse about literature and nature of its relevance to man.

H198 Freshman Honors Seminar (5)

Prereq: H197. Continuation of H197. See H197 for description.

H199 Freshman Honors Seminar (5)

Prereq: H198. Continuation of H197-H198. See H197 for description.

201 Interpretation of Fiction (5)

Prereq: 5 hrs above 100. Forms and techniques of art of fiction.

202 Interpretation of Poetry (5)

Prereq: 5 hrs above 100. Intensive reading of selected poems from all periods of English and American literature and study of forms and techniques.

203 Interpretation of Drama (5)

Prereq: 5 hrs above 100. Analysis of dramatic forms.

204 Introduction to Comparative Literature I: The Classical Tradition (5)

Prereq: 5 hrs above 199. Selected classical texts, sometimes alone and sometimes in conjunction with modern texts, for purpose of defining classical sensibility in western literature.

205 Introduction to Comparative Literature II: Romantic Tradition (5)

Prereq: 5 hrs above 199. Will deal with esthetic and philosophical concepts that have formed Romantic Tradition in western literature. Concentration on works by German, English and French writers.

206 Introduction to Comparative Literature III: The Modern Tradition (5)

Prereq: 5 hrs above 199. Selected literary works which provide background for and express modern sensibility in western literature.

H297 Honors Studies in Fiction (5)

Prereq: admission to Honors College. Forms and techniques of art of fiction. Honors College parallel to 201, Interpretation of Fiction.

H298 Honors Studies in Poetry (5)

Prereq: admission to Honors College. Intensive study of selected poems from all periods of English and American literature and study of forms and techniques. Honors College parallel to 202, Interpretation of Poetry.

H299 Honors Studies in Drama (5)

Prereq: admission to Honors College. Intensive study of nature of drama, analysis of dramatic forms. Honors College parallel to 203, Interpretation of Drama.

301 Shakespeare, The Histories (5)

Prereq: 5 hrs above 199. (fall) History plays.

301A Shakespeare, Selected Plays and Poems (3)

Prereq: 5 hrs above 199. Selected tragedies, histories and comedies together with related poems. Examination of themes, characters and language. Recommended for non-majors. Not duplicated by 301.

302 Shakespeare, The Comedies (5)

Prereq: 5 hrs above 199. (winter) Comedies.

302A Shakespeare: Selected Plays and Poems (3)

Prereq: 5 hrs above 199. Continuation of 301A. See 301A for description. Not duplicated by 302.

303 Shakespeare, The Tragedies (5)

Prereq: 5 hrs above 199. (spring) Principal tragedies.

303A Shakespeare: Selected Plays and Poems (3)

Prereq: 5 hrs above 199. Continuation of 301A and 302A. See 301A for description. Not duplicated by 303.

304 English Bible (5)

Prereq: 5 hrs above 100. Selected prose and poetry of Old and New Testaments.

306A Studies in Oriental Literature (5)

(fall) Introduction to cultural background of Oriental literature.

306B Studies in Oriental Literature (5)

Prereq: 306A. (winter) Continuation of 306A. Study of classical Oriental literature.

306C Studies in Oriental Literature (5)

Prereq: 306B. (spring) Continuation of 306A-B. Study of modern Oriental literature.

307 The Structure of American English (5)
Prereq: 10 hrs above 199. Sound structure and grammatical structure of American English in light of contemporary linguistic theory.

308 Advanced Composition (5)

Prereq: jr rank. Past and present forms of essay; practice in a variety of non-fiction prose techniques; stress on development of a mature prose style.

309 Creative Writing (5)

Prereq: 201 or 202 or 203. Beginning course in creative writing. Will concentrate on processes of invention as they lead to works of fiction and poetry. Student manuscripts criticized; creative literary works of recognized importance analyzed; act of writing a continuing practice.

310 McGuffey Lectureship in Literature (1-5)

Prereq: 5 hrs. Special series of lectures offered by current McGuffey Visiting Professor of English. Subject announced each qtr. Number of lectures offered determines credit hrs assigned.

311 Early English Literature (5)

Prereq: 10 hrs above 199. Major works and genres of Old and Middle English literature including Chaucer.

312 Renaissance Literature (5)

Prereq: 10 hrs above 199. Major works, writers and genres of the English Renaissance, excluding Shakespeare.

313 Restoration and Neo-Classical Literature (5)

Prereq: 10 hrs above 199. Major works, writers and genres of Restoration and neo-classical period.

314 Romantic and Victorian Literature (5)

Prereq: 10 hrs above 199. Major works, writers and genres of Romantic and Victorian periods.

315 American Literature (3)

Themes in American literature of 19th and 20th centuries especially relevant to the non-major. Not duplicated by other American literature courses.

316 English and Continental Literature (3)

Themes in English and European literature especially relevant to the nonmajor. Not duplicated by other English literature courses.

317A American Literature by Black Authors (5)

Body of literature being written by black authors in America and attempts to assess the quality and significance of this cultural contribution. (a) Emphasizes "background" materials, fiction and autobiography of 19th and 20th centuries; (b) emphasizes poetry, but includes further reading in recent fiction and nonfiction prose; (c) emphasizes drama, continues study of new trends in poetry.

317B American Literature by Black Authors (5)

Continuation of 317A. See 317A for description.

317C American Literature by Black Authors (5)

Continuation of 317A,B. See 317A for description.

321 American Literature to the Civil War (5)

Prereq: 10 hrs above 199. Major works, writers and genres of American literature before the Civil War.

322 American Literature Since the Civil War (5)

Prereq: 10 hrs above 199. Major works, writers and genres of American literature since the Civil War.

331 20th Century British and American Literature (5)

Prereq: 10 hrs above 199. Some major works, writers and genres of British and American literature in this century.

341 Themes in Comparative Literature (5)

Prereq: 10 hrs in 204, 205, 206. Significant literary theme in western literature, for example: concept of the Baroque, concept of time in western literature, use and reinterpretation of myth in drama, concept of dissonance in poetry. Subject matter will change from qtr to qtr so that the course may be taken more than once for credit.

350A Teaching Language and Composition (3)

Prereq: jr rank. Content and methods of presentation for teaching language and composition in high school. Not applicable to Arts and Sciences 200-level requirement.

350B Teaching Literature (3)

Prereq: jr rank. Content and methods of presentation for teaching literature in high school. Not applicable to Arts and Sciences 200-level requirement.

351 The History of the English Language (5)

Prereq: 10 hrs above 199. Development of language in phonology, grammar and vocabulary from Anglo-Saxon times; readings in early English.

352 The Development of American English (5)

Prereq: 10 hrs above 199. History of English language in America; regional and social dialects, special developments in vocabulary, pronunciation, spelling and grammar.

393 Creative Writing Workshop: Short Story (5)

Prereq: 309 and perm. (fall) Instruction and practice in writing of fiction, concentrating on development of narrative techniques, character building in stories, "staging" scenes in a narrative, etc.

394 Creative Writing Workshop: Non-Fiction (5)

Prereq: 309 and perm. (winter) Will concentrate on writing non-fiction, and will explore general techniques of prose as they apply to fictionalized biography and the literary essay and as they are used to dramatize effectively works that are generally considered non-fiction.

395 Creative Writing Workshop: Poetry (5)

Prereq: 309 and perm. (spring) Experience and language of poetry, and upon practice of writing poetry.

409 English Renaissance Drama (5)

Prereq: 301, 302, 303, or 312. Plays of Shakespeare's contemporaries (1590-1642); Marlowe, Jonson, Chapman, Tourneur, Webster, Beaumont and Fletcher. Problems of form, character, theme, spectacle, etc.

410 Studies in Shakespeare (5)

Prereq: 301, 302 or 303 and sr rank. Intensive study of some aspect of Shakespeare's works and times.

411 Studies in Early English Literature (5)

Prereq: 311 and sr rank. (winter) Intensive study of some aspect of early English literature—author, genre, theme.

412 Studies in Renaissance Literature (5)

Prereq: 312 and sr rank. (fall, spring) Intensive study of some aspect of Renaissance literature—author, genre, theme.

413 Studies in Restoration and Neo-Classical Literature (5)

Prereq: 313 and sr rank. (winter) Intensive study of some aspect of Restoration and Neo-classical literature—author, genre, theme.

414 Studies in Romantic and Victorian Literature (5)

Prereq: 314 and sr rank. (fall, spring) Intensive study of some aspect of Romantic and Victorian literature—author, genre, theme.

417 Studies in Black Literature (5)

Prereq: 317A or perm. Intensive study of some aspect of Afro-American literature—author, period, theme, etc.

421 Studies in American Literature to the Civil War (5)

Prereq: 321 and sr rank. (winter) Intensive study of some aspect of American literature before the Civil War—author, genre, theme.

422 Studies in American Literature from the Civil War (5)

Prereq: 322 and sr rank. (fall, spring) Intensive study of some aspect of American literature since the Civil War — author, genre, theme.

431 Studies in Contemporary Literature (5)

Prereq: 331 and sr rank. (fall) Intensive study of some aspect of British and American literature of this century — author, genre, theme.

441 Studies in Comparative Literature (5)

Prereq: 341 and sr rank. (winter) Small seminar-type course devoted to a selected topic—a literary movement, a period, a genre, a figure, a problem—in which emphasis is placed on independent reading and criticism.

450 Readings in English Education (5)

Prereq: jr rank. Recent developments and writings in English education and their possible application to the teaching of jr and sr high school English.

451 Studies in Criticism (5)

Prereq: 20 hrs above 100 and sr rank or perm. (winter, spring) Some aspect of history and of problems in critical theory and its application.

453 Form and Theory of Fiction (5)

Prereq: 201, 309 and 393 or perm. Intended as sophisticated study of wide range of serious fiction from an authorial point of view. Novels, short stories and other forms of narrative literature. Aspects of various problems related to creative writing—scene construction, dialogue, characterization, structure, use of symbol, leitmotif, allegory and angle of narration—will be analyzed and discussed.

461 Colloquium (5)

Prereq: sr rank. (fall) Specific interdisciplinary problems to be assigned each qtr.

462 Colloquium (5)

Prereq: sr rank. (winter)

463 Colloquium (5)

Prereq: sr rank. (spring)

470 Special Studies (5)

Prereq: sr rank. Normally devoted to intensive study of one author.

490 Independent Reading (1-15)

Prereq: perm. Directed individual reading and research.

496 Advanced Workshop in Creative Writing (5)

Prereq: 10 hrs of creative writing and perm. (spring) Limited to 6 students, will consist largely of independent work in a particular literary genre. Students will meet together or individually with instructor, according to needs of particular work of that qtr.

H499 Honors Project (5-15)

Prereq: perm. Completion of individual writing project for BA with honors in English.

Humanities

107 Humanities—Great Books (3)

Prereq: fr and soph only. (fall) Classics of western civilization leading toward an understanding of cultural heritage. Guidance in critical thinking, reading and writing about those works.

108 Humanities—Great Books (3)

Prereq: fr and soph only. (winter) Continuation of 107. See 107 for description.

109 Humanities—Great Books (3)

Prereq: fr and soph only. (spring) Continuation of 107, 108. See 107 for description.

307 Humanities—Great Books (3)

Prereq: jr and sr only. (fall) Classics of western civilization, leading toward an understanding of cultural heritage. Guidance in critical thinking, reading and writing about those works.

308 Humanities—Great Books (3)

Prereq: jr and sr only. (winter) Continuation of 307. See 307 for description.

309 Humanities—Great Books (3)

Prereq: jr and sr only. (spring) Continuation of 307, 308. See 307 for description.

ENVIRONMENTAL DESIGN

See Design, Environmental

FILM

334 Aspects of Film (3)

(fall, winter) Examination of basic motion picture structure and esthetics; introductory survey of narrative, documentary and imagist films. Weekly screenings.

337 Studies in the Narrative Film (3)

Prereq: 334 or perm. (fall) Selected topics in narrative motion pictures with emphasis on contemporary filmmakers. Weekly screenings.

338 Studies in the Documentary Film (3)

Prereq: 334 or perm. (winter) Development of naturalistic and polemic traditions; cinema verite and personal documentary. Weekly screenings.

339 Studies in the Imagist Film (3)

Prereq: 334 or perm. (spring) Evolution of nonnarrative and imagistic impulses in film with major focus on contemporary work. Weekly screenings.

340 Film Techniques (3)

Prereq: 334 or perm. (spring) Basic 8mm production techniques; organized as a beginning filmmaking workshop.

361 Motion Picture Production I (5)

Prereq: 340 or perm. (fall) Professional workshop in 16mm techniques; elementary film structuring; camera and lighting; editing; sound recording; laboratory preparation. Intensive exercise as individual filmmaker.

362 Motion Picture Production II (5)

Prereq: 361 and perm. (winter) Continuation of 361.

363 Motion Picture Production III (5)

Prereq: 362 and perm. (spring) Continuation of 362.

401 Theory and Criticism of Film I (4)

Prereq: 334 or perm. (fall) Formal principles, values and stylistic fundamentals of motion pictures as well as principles and methods of film criticism. Examination of major works of theory and criticism. Weekly screenings.

402 Theory and Criticism of Film II (4)

Prereq: 401 or perm. (winter) Continuation of 401.

403 Theory and Criticism of Film III (4)

Prereq: 402 or perm. (spring) Continuation of 402.

461 Film Structure I (3)

Prereq: 334 or perm. (fall) Examination of structure in films, primarily narrative forms. Structuring of nonscripted motion pictures. Editing organization of picture and sound. Preparation of scripts and predesigns.

462 Film Structure II (3)

Prereq: 461 or perm. (winter) Continuation of 461.

471 Film Topics Seminar (1-5)

Prereq: perm. (fall) Investigation of selected motion picture topic announced in advance of registration. Orientation may be either scholarly-critical or production workshop. Topics and credit hours vary qtr to qtr.

472 Film Topics Seminar (1-5)

Prereq: perm. (winter) See 471 for description.

473 Film Topics Seminar (1-5)

Prereq: perm. (spring) See 471 for description.

480 Individual Problems (1-5)

Prereq: perm. Production of a motion picture. May be repeated.

481 Individual Readings (1-5)

Prereq: perm. Readings and reports on works related to motion pictures. Reading list selected by student in consultation with faculty member. May be repeated.

482 Independent Study (1-5)

Prereq: perm. Advanced individual creative or scholarly work in film.

FINANCE

The finance major prepares professionals who are concerned with the development and utilization of funds for economic and social purposes.

Course work is available in the fields of financial management, commercial banking, financial institutions, security markets and risk and insurance.

In addition to the BBA degree requirements, a student majoring in finance must complete 24 hours of finance courses at the 300 or 400 level including 327.

102 Personal Money Management (4)

Prereq: not open to jrs and srs. How to live better financially. Relation of personal goals to money management in terms of expenditures, savings and tax considerations. Financial media that serve the individual such as life insurance, savings, securities and consumer and mortgage credit.

301 Personal Finance (4)

Prereq: not open to fr or soph or those who have had 102 or to BBA students. Problems in managing personal finances. Budgeting expenditures and savings. Planning a life insurance program. Investment in savings accounts, securities and other financial assets. Use of consumer and mortgage credit. Personal taxes.

325 Managerial Finance (4)

Prereq: Acct 102 or with Acct 102. Role of financial management in business enterprise; financial analysis; planning needs for short-term and long-term funds; planning for profits; capital budgeting; internal management of working capital and income; raising funds to finance growth of business enterprises.

327 Banking and the Financial System (4)

Prereq: Econ 101 or 301. Functioning of commercial banking system and other financial institutions. Flow of funds and interest-price movements in money and capital markets. Supply of loanable funds and demand for funds in mortgage loan market, consumer credit market, corporate securities markets and markets for government securities and municipal obligations. Consideration of effects on financial markets of Federal Reserve and Treasury policies.

331 Risk and Insurance (4)

Prereq: Econ 101 or 301. Social importance of risk and its place in personal, business and national life, including principles and methods of handling risk. Special interest in technique of insurance.

341 Investments (4)

Prereq: 325. Principles in determination of investment media for individual and institutional portfolios. Sources of investment information; analysis of financial statements; investment risks and yields. Securities markets and their behavior.

428 Management of Financial Institutions (4)

Prereq: 325 or perm. Analysis of objectives, functions, practices and problems of financial institutions as viewed by management of these institutions.

432 Property and Casualty Insurance (4)

Prereq: 331. Analysis of principal types of property and casualty insurance policies with respect to protection afforded policyholder, his obligations and cost of protection. Policies studied include fire and extended coverage, allied lines, business interruption, inland marine, automobile, general liability, theft and bonds. Subjects of risk, insurance law and multiple-peril policies also covered.

436 Life Insurance (4)

Prereq: 331. Fundamental economics of life insurance. Principles and practices of life insurance including types of contracts, group and industrial insurance and annuities.

437 Personal and Business Insurance Planning (4)

Prereq: 331. Consumer needs for all types of insurance; legal aspects and estate planning; risk management programs for business, including all forms of group insurance.

439 Insurance Regulations and Financial Management (4)

Prereq: 331. Underwriting, reinsurance, financial analysis and relevant insurance statutes and regulations.

442 Security Analysis (4)

Prereq: 341. Problems of selecting securities for various investment purposes. Industry structure, volume-price-cost relationships, management, financial position, terms of securities contracts and market price behavior studied to determine attractiveness of securities. Portfolio construction considered.

445 Portfolio Management (4)

Prereq: 341. Decision-making processes in management of individual and institutional securities portfolios. Theoretical foundations of portfolio selection and construction. Model-building and other criteria applicable to selection, risk-return tradeoffs, revision and evaluation of portfolio performance. Applications of computer technology and other quantitative techniques to different aspects of portfolio management.

453 Real Estate Finance (4)

Prereq: 325. Financial and investment analysis in purchase and sale of real properties, including single-family dwellings and income properties. Income and risk analysis in real

estate investment. Instruments of real estate finance and institutional arrangements in mortgage markets. Government and mortgage markets. Flow of funds and credit conditions in mortgage markets.

455 International Finance (4)

Prereq: 325 or perm. Problems in international finance. Financing international trade and other transactions; foreign exchange market and exchange rates; international payments system. Foreign central banking and current developments in international financial cooperation.

461 Problems in Business Finance (4)

Prereq: 325. Case study of financial management in business enterprises. Planning current and long-run financial needs, profit planning, allocation of funds, raising funds, dividend policies, expansion and combination, recapitalization and reorganization.

463 Capital Allocation (4)

Prereq: 325. Planning capital outlays. Methods for ranking investment proposals. Theories of financial structure and cost of capital. Approaches to investment decisions under conditions of uncertainty.

465 Mathematical Analysis of Financial Decisions (4)

Prereq: 325. Application of quantitative methods to financial management, with special emphasis on systems approach to evaluating proposed financial decisions.

490 Research (3, 4 or 5)

Prereq: perm. Methodology, analysis of data and preparation of research findings.

491 Seminar (3, 4 or 5)

Prereq: perm. Selected topics of current interest in finance area.

493 Readings (1-15)

Prereq: perm. Readings in selected fields of finance. Topics selected by student in consultation with faculty member.

497 Independent Research (1-15)

Prereq: perm. Research in selected fields of finance under direction of faculty member.

498 Internship (1-15)

Prereq: perm.

FOREIGN LANGUAGES AND LITERATURES

African and Asian Languages
(Center for International Studies)

Germanic, Romance and Slavic Languages
(Department of Modern Languages)

Greek and Latin Languages
(Department of Classical Languages)

African and Asian Languages

(Center for International Studies)

A major in African and Asian languages is not offered. Undergraduates seeking a certificate in African or Southeast Asian studies are expected to complete a minimum of six quarters of an appropriate African or Asian language.

African and Asian Literatures in English

The Department of English frequently (but not on a regular basis) offers courses at both the undergraduate and graduate levels, the content of which is primarily focused on the literatures of Africa and Asia. Students who wish to select courses in African and Asian literatures in English in order to fulfill the requirements for the undergraduate certificate or the MA degree in either African or Southeast Asian studies are advised to consult regularly with the Department of English and with the appropriate area studies director in order to be informed about the availability of such courses in any given academic quarter.

Eng 306A, B and C, Studies in Oriental Literature, are offered on a regular basis. (For descriptions of these courses, see p. 144 under English.)

Chinese (Asian)

111 Elementary Chinese (4)
(fall)

112 Elementary Chinese (4)
Prereq: 111 or equiv. (winter)

113 Elementary Chinese (4)
Prereq: 112 or equiv. (spring)

211 Intermediate Chinese (4)
Prereq: 113 or equiv. (fall)

212 Intermediate Chinese (4)
Prereq: 211 or equiv. (winter)

213 Intermediate Chinese (4)
Prereq: 212 or equiv. (spring)

311 Advanced Chinese (4)
Prereq: 213 or equiv. (fall)

312 Advanced Chinese (4)
Prereq: 311 or equiv. (winter)

313 Advanced Chinese (4)
Prereq: 312 or equiv. (spring)

Hausa (African)

111 Elementary Hausa (4)
(fall)

112 Elementary Hausa (4)
Prereq: 111 or equiv. (winter)

113 Elementary Hausa (4)
Prereq: 112 or equiv. (spring)

211 Intermediate Hausa (4)
Prereq: 113 or equiv. (fall)

212 Intermediate Hausa (4)
Prereq: 211 or equiv. (winter)

213 Intermediate Hausa (4)
Prereq: 212 or equiv. (spring)

311 Advanced Hausa (4)
Prereq: 213 or equiv. (fall)

312 Advanced Hausa (4)
Prereq: 311 or equiv. (winter)

313 Advanced Hausa (4)
Prereq: 312 or equiv. (spring)

Indonesian/Malay (Asian)

111 Elementary Indonesian/Malay (4)
(fall)

112 Elementary Indonesian/Malay (4)
Prereq: 111 or equiv. (winter)

113 Elementary Indonesian/Malay (4)
Prereq: 112 or equiv. (spring)

211 Intermediate Indonesian/Malay (4)
Prereq: 113 or equiv. (fall)

212 Intermediate Indonesian/Malay (4)
Prereq: 211 or equiv. (winter)

213 Intermediate Indonesian/Malay (4)
Prereq: 212 or equiv. (spring)

311 Advanced Indonesian/Malay (4)
Prereq: 213 or equiv. (fall)

312 Advanced Indonesian/Malay (4)
Prereq: 311 or equiv. (winter)

313 Advanced Indonesian/Malay (4)
Prereq: 312 or equiv. (spring)

Swahili (African)

111 Elementary Swahili (4)
(fall)

112 Elementary Swahili (4)
Prereq: 111 or equiv. (winter)

113 Elementary Swahili (4)
Prereq: 112 or equiv. (spring)

211 Intermediate Swahili (4)
Prereq: 113 or equiv. (fall)

212 Intermediate Swahili (4)
Prereq: 211 or equiv. (winter)

213 Intermediate Swahili (4)
Prereq: 212 or equiv. (spring)

311 Advanced Swahili (4)
Prereq: 213 or equiv. (fall)

312 Advanced Swahili (4)
Prereq: 311 or equiv. (winter)

313 Advanced Swahili (4)
Prereq: 312 or equiv. (spring)

Germanic, Romance and Slavic Languages

(Department of Modern Languages)

The major requirement for the AB degree is a minimum of 36 quarter hours beyond 241 (Please note: 241 is required as the final intermediate level course for modern language majors). Specific course requirements are 241; 341; 342; 343; 348 or 349; 355; 356, and at least 12 quarter hours at the 400 level which

should include courses in both language and literature. Language majors who participate in study abroad programs are to take at least two 400-level courses in their major on the Athens campus. Spanish majors must take one of the following as part of the 400-level requirement: 443, 444, 447, or 448. Should a student receive a D in a course required for the major, he must repeat the course until he makes at least a C. Majors are strongly urged to study abroad in their junior year in one of the department's centers. Suggested electives for majors are classical languages, comparative literature, cultural anthropology, English, fine arts, history of the country in the student's major interest and linguistics. Language majors should acquire a reading knowledge of a second foreign language.

Requirements for the BS in education degree with a comprehensive program in a modern foreign language are stated in the section of the College of Education. Students wishing to complete teacher certification requirements as AB degree candidates should refer to the Arts and Sciences section of this catalog for an explanation of the requirements. Prospective teachers are urged to spend at least one summer in a country of their major language.

Language laboratory facilities include 150 student booths with individual tape recorders. Classrooms have speakers connected to a high-fidelity central console which can provide recorded material for various classes.

The department has chapters of Delta Phi Alpha and Phi Sigma Iota. Academic-year programs are held in Austria, France and Spain. Summer programs are conducted in Italy, Mexico and the Soviet Union.

For Arts and Sciences foreign language requirements, see the College of Arts and Sciences section of this catalog.

Asian and African languages, namely Chinese, Indonesian/Malay, Hausa and Swahili, are taught at Ohio University in the Department of Linguistics. See Linguistics. Also see International Studies.

Modern Languages (Professional Courses)

410 The Language Laboratory (3)

Prereq: foreign language courses numbered 213 or 241, or courses in linguistics. Use of language lab, as correlated with foreign language classroom; instruction in selection, preparation and use of instructional materials and tests and in successful operation of laboratory equipment.

445 Teaching of Modern Foreign Languages (3)

Prereq: jr or sr rank. (fall, spring) Not to be counted for a major in foreign language, nor as hrs above 200 for the AB degree. Study, demonstration and use of methods and materials for effective modern foreign language instruction. Required of majors who plan to teach.

Foreign Literatures in Translation

The lectures and readings for these courses are in English and are aimed at the entire University community. While they are not to be counted for a major in a modern foreign language, these courses may be counted toward fulfilling a part of the requirements for the humanities of the College of Arts and Sciences. No credit toward meeting the foreign language requirement.

335 Italian Literature in Translation (4)

Famous literary works of best Italian authors, presented in English.

336 Spanish Literature in Translation (4)

Topics may deal with either Spanish or Latin American literature. May be repeated for credit when topic changes.

337 French Literature in Translation (4)

Major French novelists of 20th century and their works, presented in English.

338A German Literature in Translation (4)

Survey of masterpieces of German literature, presented in English.

338B German Novel in Translation (4)

Introduction to major German, Swiss and Austrian novelists in English translation.

339A Russian Literature in Translation (4)

Survey of Russian literature from beginnings to revolution, presented in English.

339B Soviet Literature in Translation (4)

Major developments of Russian literature from 1917 to present day. Lectures devoted to necessary cultural, historical and political background of various periods of Soviet literature. Readings and discussions will concentrate on exemplary works of most important poets, dramatists and prose writers.

French (Romance)

111 Elementary French (4)

Beginning course of a 3-qtr, 1st yr sequence. Basic grammatical concepts and patterns. Emphasis on development of reading, listening, comprehension, speaking and writing skills. Basic text and workbook used. Lab required.

112 Elementary French (4)

Prereq: 111. Continuation of 111. Basic text, workbook and readings used. Lab required.

113 Elementary French (4)

Prereq: 112. Continuation of 112. Basic text, workbook and readings used. Lab required.

211 Intermediate French (4)

Prereq: 113 or 2 or 3 yrs high school French. First course of a 3-qtr intermediate level sequence. Intensive review of grammar. Additional readings with discussion in French. Supplemental cultural material. Lab required.

212 Intermediate French (4)

Prereq: 211 or perm. Continuation of 211.

213 Intermediate French (4)

Prereq: 212 or 4 yrs high school French. Reading and discussion of selected modern works. Completion of 213 fulfills foreign language requirement of the College of Arts and Sciences. Not open to students who have completed 241.

241 Literature and Interpretation (4)

Prereq: 212 or 4 yrs high school French. Contemporary literature, literary analysis and terminology. Majors take 241 instead of 213. Other interested students who made A or B in 212 may also take 241 to fulfill foreign language requirement of the College of Arts and Sciences. Not open to students who have completed 213.

341 Advanced Conversation and Composition (4)

Prereq: 213 or perm. Conversation based on assigned topics. Writing of short compositions which are also discussed in class.

342 Advanced Conversation and Composition (4)

Prereq: 341 or perm. Continuation of speaking with more emphasis on writing skills.

343 Advanced Conversation and Composition (4)

Prereq: 342 or perm. Emphasis on writing.

348 French Civilization and Culture (4)

Prereq: 241 or perm. (fall, winter) Social, political and cultural history of France from Middle Ages to Revolution. Readings, discussions, class reports and term papers.

Foreign Languages and Literatures

349 French Civilization and Culture (4)

Prereq: 241 or perm. (spring) Continuation of 348, covering period from 1799 to present. Problems of France in modern world.

355 Introduction to French Literature (4)

Prereq: 241. Reading and discussion of major French literary works from Middle Ages through 18th century.

356 Introduction to French Literature (4)

Prereq: 241. Extensive reading and discussion of major French literary works of 19th century.

H391 Honors Reading (1)

Prereq: admission to Honors College and perm.

415 French Literature of the Renaissance (4)

Prereq: 355 and 356. Major 16th century writers.

416 French Literature of the Renaissance (4)

Prereq: 355 and 356. Continuation of 415.

418 French Classicism (4)

Prereq: 355 and 356. Works by numerous authors, including at least some of the following: Descartes, Pascal, Mme de La Fayette, La Rochefoucauld, La Bruyère, La Fontaine and Boileau.

419 French Classicism (4)

Prereq: 355 and 356. Major plays of Corneille, Racine and Molière.

423 18th Century (4)

Prereq: 355 and 356. French literature and thought in Age of Enlightenment.

424 18th Century (4)

Prereq: 355 and 356. Continuation of 423.

425 Romanticism (4)

Prereq: 355 and 356. Romanticism in drama, poetry and fiction of first half of 19th century.

426 Realism and Naturalism (4)

Prereq: 355 and 356. Representative works of Balzac, Stendhal, Flaubert, Zola and Becque.

427 French Poetry in the Second Half of the 19th Century (4)

Prereq: 355 and 356. Poetry of Leconte de Lisle, Heredia, Baudelaire, Verlaine, Rimbaud and Mallarmé.

429 20th Century French Literature (4)

Prereq: 355 and 356. Novel, drama and poetry in France before WW II.

431 20th Century French Literature (4)

Prereq: 355 and 356. Novel, drama and poetry in France since WW II.

433 20th Century French Literature (4)

Prereq: 355 and 356. Study in depth of a genre, theme, work or major figure of 20th century.

435 Proseminar (1-4, max 12)

Prereq: perm. Subject will vary. May be repeated when subject changes.

437 Applied Phonetics (3)

Prereq: perm. (fall) Advanced study of International Phonetic Alphabet and transcription practice in French.

439 Modern French Usage (3)

Prereq: 343 or perm. (winter) Finer points of grammar. Practice in composition and analysis of texts.

441 Stylistics (3)

Prereq: 343 or perm. (spring) Composition. *Explication de texte*. Translation of English into French. Study of French prosody.

H491 Honors Research (1)

Prereq: admission to Honors College and perm.

German (Germanic)

111 Elementary German (4)

Introduction to pronunciation and basic grammar. Development of comprehension and speaking skills. Lab required. Beginning course of a 3-qtr 1st yr sequence.

112 Elementary German (4)

Prereq: 111. Continuation of 111. Lab required.

113 Elementary German (4)

Prereq: 112. Continuation of 112. Continued development of skills of oral and written production and comprehension. Lab required.

211 Intermediate German (4)

Prereq: 113 or 2 or 3 yrs h.s. German. Continued development of listening comprehension, reading, writing and speaking skills. Grammar review. Lab required. First course of 3-qtr intermediate level sequence.

212 Intermediate German (4)

Prereq: 211 or perm. Continuation of 211. Emphasis on discussion of modern texts. Lab required.

213 Intermediate German (4)

Prereq: 212 or 4 yrs h.s. German. Modern texts are read and form basis for discussions and written assignments. Completion of 213 fulfills foreign language requirement of the College of Arts and Sciences. Not open to students who have completed 241.

235 German Drama on Stage (2-4)

Prereq: 211. (winter) Presentation of German drama on stage. Private coaching in pronunciation and inflection of German. Credit varies according to role of student.

241 Literature and Interpretation (4)

Prereq: 212 or 4 yrs of h.s. German. See Fr 241 for description. Not open to students who have completed 213.

341 Advanced Conversation and Composition (4)

Prereq: 213 or perm.

342 Advanced Conversation and Composition (4)

Prereq: 341 or perm.

343 Advanced Conversation and Composition (4)

Prereq: 342 or perm.

348 German Culture and Civilization (4)

Prereq: 241 or perm. (fall, winter) Historical, intellectual and artistic aspects of German, Austrian and Swiss culture from earliest times to present.

349 German Culture and Civilization (4)

Prereq: 241 or perm. (spring) Continuation of 348.

355 Introduction to German Literature (4)

Prereq: 241. From Middle Ages to Classical Period (800-1800).

356 Introduction to German Literature (4)

Prereq: 241. From Romanticism to present.

H391 Honors Reading (1)

Prereq: admission to Honors College and perm.

425 19th Century German Literature (4)

Prereq: 355 and 356.

426 19th Century German Literature (4)

Prereq: 355 and 356.

427 19th Century German Literature (4)

Prereq: 355 and 356.

429 20th Century German Literature (4)

Prereq: 355 and 356.

430 20th Century German Literature (4)

Prereq: 355 and 356.

431 20th Century German Literature (4)

Prereq: 355 and 356.

433 German Lyric Poetry (4)

Prereq: 355 and 356. Interpretative and critical study of German lyric poetry.

435 Proseminar (1-4, max 12)

Prereq: perm. Intensive analysis of major author, literary genre or theme. When subject is changed, student may reenroll.

437 Phonology (3)

Prereq: perm. (fall) Problems in description and teaching of German sound system. Training in phonetic and phonemic transcription. Pronunciation drills. Contrastive analysis.

439 Grammatical Structure (3)

Prereq: 343 or perm. (winter) Selected problems in analysis and classroom presentation of German morphology and syntax.

441 Stylistics (3)

Prereq: 343 or perm. (spring) Advanced writing and stylistic analysis. Practice in a variety of nonfiction prose techniques.

447 Readings in German Literature from Periods through the 17th Century (4)

Prereq: 355 and 356. Literature of the Courtly Period, Renaissance and Reformation and Baroque.

448 Readings in German Literature from Periods through the 17th Century (4)

Prereq: 355 and 356. Continuation of 447.

453 The Age of Goethe (4)

Prereq: 355 and 356. Major works of Lessing, Schiller and Goethe.

454 The Age of Goethe (4)

Prereq: 355 and 356. Continuation of 453. See 453 for description.

455 The Age of Goethe (4)

Prereq: 355 and 356. Continuation of 453 and 454. See 453 for description.

H491 Honors Research (1)

Prereq: admission to Honors College and perm.

Italian (Romance)

- 111 Elementary Italian (4)**
(fall) Beginning course of 3-qtr 1st yr sequence.
- 112 Elementary Italian (4)**
Prereq: 111. (winter) Continuation of 111.
- 113 Elementary Italian (4)**
Prereq: 112. (spring) Continuation of 112.
- 211 Intermediate Italian (4)**
Prereq: 113 or 2 or 3 yrs h.s. Italian. (fall) First course of 3 qtr intermediate level sequence.
- 212 Intermediate Italian (4)**
Prereq: 211 or perm. (winter) Continuation of 211.
- 213 Intermediate Italian (4)**
Prereq: 212 or 4 yrs h.s. Italian. (spring) Successful completion of 213 fulfills foreign language requirement of the College of Arts and Sciences. Not open to students who have completed 241.
- 241 Literature and Interpretation (4)**
Prereq: 212 or 4 yrs h.s. Italian. See Fr 241 for description. Not open to students who have completed 213.
- 341 Advanced Conversation and Composition (4)**
Prereq: 213 or perm. (fall)
- 342 Advanced Conversation and Composition (4)**
Prereq: 341 or perm.
- 343 Advanced Conversation and Composition (4)**
Prereq: 342 or perm.
- 348 Italian Civilization and Culture (4)**
Prereq: 213 or perm. (winter) Historical and cultural development of Italy from Middle Ages to Renaissance.
- 349 Italian Civilization and Culture (4)**
Prereq: 213 or perm. (spring) Continuation of 348, covering period from Renaissance to present.
- 355 Introduction to Italian Literature (4)**
Prereq: 241 or perm.
- 356 Introduction to Italian Literature (4)**
Prereq: 241 or perm.

Portuguese (Romance)

- 111 Elementary Portuguese (4)**
(fall) Beginning course of 3-qtr 1st yr sequence.
- 112 Elementary Portuguese (4)**
Prereq: 111. (winter) Continuation of 111.
- 113 Elementary Portuguese (4)**
Prereq: 112. (spring) Continuation of 112.
- 211 Intermediate Portuguese (4)**
Prereq: 113 or 2 or 3 yrs h.s. Portuguese. (fall) First course of 3-qtr intermediate level sequence.
- 212 Intermediate Portuguese (4)**
Prereq: 211 or perm. (winter) Continuation of 211.
- 213 Intermediate Portuguese (4)**
Prereq: 212 or 4 yrs h.s. Portuguese. (spring) Successful completion of 213 fulfills language requirement of the College of Arts and Sciences. Not open to students who have completed 241.
- 241 Literature and Interpretation (4)**
Prereq: 212 or 4 yrs h.s. Portuguese. See Fr 241 for description. Not open to students who have completed 213.

Russian (Slavic)

- 111 Elementary Russian (4)**
(fall) Beginning course of 3-qtr 1st yr sequence.
- 112 Elementary Russian (4)**
Prereq: 111. (winter) Continuation of 111.
- 113 Elementary Russian (4)**
Prereq: 112. (spring) Continuation of 112.
- 114 Intensive Elementary Russian (12)**
Prereq: perm. (spring) Intensive training in Russian language equivalent to Rus 111-112-113, or 1 yr's language training in 1 qtr.
- 205 Scientific Russian (3)**
Prereq: perm. (on demand) Essentials of technical and scientific reading from modern texts.
- 211 Intermediate Russian (4)**
Prereq: 113 or 2 or 3 yrs h.s. Russian. (fall) Continued language study. Review of grammar. First course of 3-qtr intermediate level sequence.

212 Intermediate Russian (4)

Prereq: 211 or perm. (winter) Continuation of 211. Extensive reading, writing and oral practice.

213 Intermediate Russian (4)

Prereq: 212 or 4 yrs h.s. Russian. (spring) Accelerated reading, writing and oral practice. Completion of 213 fulfills foreign language requirement of the College of Arts and Sciences. Not open to students who have completed 241.

214 Intensive Intermediate Russian (12)

Prereq: perm. (summer) Intensive training in Russian language equivalent to Rus 211-212-213, or 1 yr's language training in 1 qtr.

241 Literature and Interpretation (4)

Prereq: 212 or 4 yrs h.s. Russian. See Fr 241 for description. Not open to students who have completed 213.

341 Advanced Conversation and Composition (4)

Prereq: 213 or perm. (fall)

342 Advanced Conversation and Composition (4)

Prereq: 341 or perm. (winter)

343 Advanced Conversation and Composition (4)

Prereq: 342 or perm. (spring)

348 The Cultural History of Russia (4)

Prereq: 241 or perm. Cultural heritage of Russian people. Origin of Russian literature. Russian chronicles. Three cycles of the *bylina*. Russian ballads. Russian folklore. Readings and lectures in Russian.

349 The Cultural History of Russia (4)

Prereq: 241 or perm. Continuation of 348.

355 Introduction to Russian Literature (4)

Prereq: 241. Analysis of genres and literary movements.

356 Introduction to Russian Literature (4)

Prereq: 241. Continuation of 355.

H391 Honors Reading (1)

Prereq: admission to Honors College and perm.

397 Introduction to the History of the Russian Language (3)

Prereq: 213 or 241 or 4 yrs h.s. Russian. (spring) Russian phonology, morphology and syntax from Common Slavic to present. East, West and South Slavic languages.

411 19th Century Russian Poetry (4)

Prereq: 355 and 356. Pushkin and Lermontov.

412 19th Century Russian Poetry (4)

Prereq: 355 and 356. Continuation of 411.

413 19th Century Russian Poetry (4)

Prereq: 355 and 356. Continuation of 411 and 412.

429 Russian Literature in the Soviet Era (4)

Prereq: 355 and 356.

430 Russian Literature in the Soviet Era (4)

Prereq: 355 and 356. Continuation of 429.

431 Russian Literature in the Soviet Era (4)

Prereq: 355 and 356. Continuation of 429 and 430.

435 Proseminar (1-4, max 12)

Prereq: perm. Subject will vary. May be repeated when subject changes.

437 Applied Phonetics (3)

Prereq: perm. (fall)

439 Structure of Modern Russian (3)

Prereq: 343 or perm. (winter) Accurate linguistic description of entire structure of Russian.

441 Stylistics (3)

Prereq: 343 or perm. (spring) Advanced writing and stylistic analysis.

443 19th Century Novel (4)

Prereq: 355 and 356. (fall) Biographies; novels of Gogol, Turgenev and Tolstoy.

444 19th Century Novel (4)

Prereq: 355 and 356. (winter) Continuation of 443.

445 19th Century Novel (4)

Prereq: 355 and 356. (spring) Continuation of 443 and 444.

H491 Honors Research (1)

Prereq: admission to Honors College and perm.

Spanish (Romance)

111 Elementary Spanish (4)

Development of comprehension, speaking and reading skills. Basic grammar. Lab required. Beginning course of 3-qtr 1st yr sequence.

112 Elementary Spanish (4)

Prereq: 111. Continuation of 111.

Foreign Languages and Literatures

113 Elementary Spanish (4)

Prereq: 112. Continuation of 112.

211 Intermediate Spanish (4)

Prereq: 113 or 2 or 3 yrs h.s. Spanish. Intensive review of grammar. Additional readings and discussion in Spanish. Supplemental cultural material. Lab required. First course of 3-qtr intermediate level sequence.

212 Intermediate Spanish (4)

Prereq: 211 or perm. Continued review. Additional literary readings with discussion in Spanish.

213 Intermediate Spanish (4)

Prereq: 212 or 4 yrs h.s. Spanish. Selected readings of 20th century Spanish dramatists, poets, novelists and essayists with discussion in Spanish. Completion of 213 fulfills foreign language requirement of the College of Arts and Sciences. Not open to students who have completed 241.

241 Literature and Interpretation (4)

Prereq: 212 or 4 yrs h.s. Spanish. See Fr 241 for description. Not open to students who have completed 213.

341 Advanced Conversation and Composition (4)

Prereq: 213 or perm. Conversation based on assigned topics. Writings of short compositions which are also discussed in class.

342 Advanced Conversation and Composition (4)

Prereq: 341 or perm. Continuation of speaking with more emphasis on writing skills.

343 Advanced Conversation and Composition (4)

Prereq: 342 or perm. Emphasis on writing.

348 Spanish Civilization and Culture (4)

Prereq: 241 or perm. (fall, winter) Historical, social, political and cultural readings about Spain.

349 Spanish American Civilization and Culture (4)

Prereq: 241 or perm. (spring) Lectures in Spanish on Indian civilizations, colonial period, 19th and 20th centuries.

355 Introduction to Spanish Literature (4)

Prereq: 241. Reading and discussion of major Spanish literary works from Middle Ages to 18th century.

356 Introduction to Spanish Literature (4)

Prereq: 241. Emphasis on 18th and 19th century writers.

H391 Honors Reading (1)

Prereq: admission to Honors College and perm.

425 19th Century Spanish Literature (1800-1850) (4)

Prereq: 355 and 356. Romanticism, *costumbrismo* and other trends in drama, essay and poetry.

427 19th Century Spanish Literature (1850-1900) (4)

Prereq: 355 and 356. Emphasis on regionalism and naturalism in the novel.

429 Generation of '98 (4)

Prereq: 355 and 356. Representative works by Azorín, Baroja, Machado, Unamuno, Valle-Inclán and other authors.

432 20th Century Spanish Literature (4)

Prereq: 355 and 356. Emphasis on drama and poetry. Works by Benavente, Casona, Garcia Lorca and other writers of the Generation of 1927.

433 20th Century Spanish Literature (4)

Prereq: 355 and 356. Historical background, theories of literature and literary movements in peninsular literature from 1939 to present.

435 Proseminar (1-4, max 12)

Prereq: perm. Subject will vary. May be repeated when subject changes.

437 Applied Phonetics (3)

Prereq: perm. (fall) Systematic description of segmental and prosodic elements of Spanish system, particularly as contrasted with English.

439 Modern Spanish Usage (3)

Prereq: 343 or perm. (winter) Syntactical and grammatical structure of modern Spanish.

441 Stylistics (3)

Prereq: 343 or perm. (spring) Analysis of literary styles and study of techniques used to acquire correct style in writing Spanish.

443 Survey of Spanish American Literature (4)

Prereq: perm. Main trends of Spanish American literature from colonial period to *Modernismo*.

444 Survey of Spanish American Literature (4)

Prereq: perm. Continuation of 443. Main trends of Spanish American literature from *Modernismo* to contemporary period.

447 Themes from Spanish American Prose (4)

Prereq: perm.

448 Contemporary Spanish American Literature (4)

Prereq: perm.

H491 Honors Research (1)

Prereq: admission to Honors College and perm.

Greek and Latin Languages

(Department of Classical Languages)

The Latin major requirement for the AB degree is a minimum of 39 hours above courses 111-112-113, with at least nine hours of 400-level courses consisting of Classical Languages 401, Latin 433 and other 400-level work in Latin.

A major in Greek is not offered, but Latin majors, especially those who are planning graduate work, are encouraged to take as much Greek as they can.

Classical Languages in English

The lectures and readings for these courses are in English, and the courses may count as part of the humanities area requirement of the College of Arts and Sciences. With the exception of course 401, which is required for a major in Latin, these courses cannot count toward a major in a foreign language or as part of the foreign language requirement of the College of Arts and Sciences.

234 Classical Mythology (3)

(spring) Introduction to classical mythology; readings and discussions of the myths, and their interpretations. No knowledge of Greek or Latin required. No credit toward meeting foreign language requirement.

235 Classical Literature in Translation (3)

Reading of Greek and Latin literature in English translation. May be counted as part of requirements for humanities of College of Arts and Sciences. May not be counted toward a major in Latin. No knowledge of Greek or Latin required. No credit toward meeting foreign language requirement.

236 Classical Literature in Translation (3)

Continuation of 235.

237 Classical Literature in Translation (3)
Continuation of 236.

401 The Life of the Romans (3)

Prereq: 12 hrs or 12 hrs history and antiquities. (on demand) *H. Hultgren*. Family, house, transportation, public amusements. Illustrations from archaeological evidence. No knowledge of Latin required. No credit toward meeting foreign language requirement.

Archaeology

201 Introduction to Archaeology—Egypt (5)

(fall, 1972 and 1974) *H. Hultgren*. Aims, methods and techniques; general types of archaeological work and excavation. Open to students who have had 203 and/or 352, as well as to beginners.

203 Introduction to Archaeology—Rome (5)

(fall, 1973 and 1975) *H. Hultgren*. Similar to 201, but with emphasis on Roman sites and antiquities. Open to students who have had 201 and/or 352, as well as to beginners.

352 Archaeology of Greece (5)

Prereq: 201 or 203; or 18 hrs foreign language; or 12 hrs history or art history. (spring) *H. Hultgren*. Archaeology of Greece and Aegean Islands, with emphasis on Minoan and Mycenaean civilizations.

490 Independent Study (1-5, max 12)

Prereq: perm. *H. Hultgren*. Specialized study in archaeology for those students who have legitimate needs and interests not served by 201, 203 or 352.

Greek

111 Beginning Greek (4)

S. Foulk, H. Hultgren, A. Radko. Grammar, vocabulary and reading of ancient Attic Greek.

112 Beginning Greek (4)

Prereq: 111. Continuation of 111. See 111 for description.

113 Beginning Greek (4)

Prereq: 112. Continuation of 111-112. See 111 for description.

127 Greek Words in English (3)

P. Murphy. General and technical vocabulary derived from Greek. No knowledge of Greek required. No credit toward meeting foreign language requirement.

French

211 Greek Prose and Poetry (3)

Prereq: 113. *A. Radko*. Review of language principles. Readings adapted to needs and interests.

212 Greek Prose and Poetry (3)

Prereq: 211. Continuation of 211. See 211 for description.

213 Greek Prose and Poetry (3)

Prereq: 212. Continuation of 211-212. See 211 for description. Passing 213 fulfills foreign language requirements of College of Arts and Sciences for AB degree.

409 Advanced Greek Readings (2-4, max 18)

Prereq: 21 hrs. (on demand) Selections adapted to needs and interests.

Latin

111 Beginning Latin (4)

Grammar, vocabulary and reading.

112 Beginning Latin (4)

Prereq: 111. Continuation of 111. See 111 for description.

113 Beginning Latin (4)

Prereq: 112. Continuation of 111-112. See 111 for description.

211 Intermediate Latin (4)

Prereq: 113 or 2-3 yrs h.s. Latin. Review of high school Latin with reading of easy prose.

212 Intermediate Latin (4)

Prereq: 211. Continuation of 211. Reading of Vergil.

213 Intermediate Latin (4)

Prereq: 212. Continuation of 211-212. See 212 for description. Passing 213 fulfills foreign language requirements of College of Arts and Sciences for AB degree.

351 Latin Prose and Poetry (3)

Prereq: 213 or 4 yrs h.s. Latin, or 3 yrs h.s. Latin and perm. *S. Foulk*. Review of essential Latin. Reading of Cicero's essays, a play of Plautus or Terence, Horace's *Odes* and *Epodes*.

352 Latin Prose and Poetry (3)

Prereq: 213. Continuation of 351. See 351 for description.

353 Latin Prose and Poetry (3)

Prereq: 203. Continuation of 351-352. See 351 for description.

364 The Teaching of High School Latin (3)

Prereq: 203. (on demand) *H. Hultgren*. Content and methods of teaching high school Latin courses.

411 Latin Literature of the Republic (3)

Prereq: 353. (1972-73) Selections from works of Plautus, Terence, Caesar, Cicero, Lucretius, Catullus and Sallust.

412 Latin Literature of the Republic (3)

Prereq: 353. Continuation of 411. See 411 for description.

413 Latin Literature of the Republic (3)

Prereq: 353. Continuation of 411-412. See 411 for description.

415 Latin Literature of the Early Empire (3)

Prereq: 353. (1973-74) Selections from works of Vergil, Horace, Livy, Ovid, Martial, Tacitus, Juvenal and Pliny the Younger.

416 Latin Literature of the Early Empire (3)

Prereq: 353. Continuation of 415. See 415 for description.

417 Latin Literature of the Early Empire (3)

Prereq: 353. Continuation of 415-416. See 415 for description.

419 Readings in Latin Literature (3)

Prereq: 353. (1974-75) Selections complement students' other readings in Latin literature.

420 Readings in Latin Literature (3)

Prereq: 353. Continuation of 419. See 419 for description.

421 Readings in Latin Literature (3)

Prereq: 353. Continuation of 419-420. See 419 for description.

433 Advanced Latin Syntax (3)

Prereq: 353. (on demand) *P. Murphy*. Writing of Latin prose.

440 Special Work in Latin (1-6, max 12)

Prereq: 353. (on demand) Specialized work in selected phases of classical study.

FRENCH

See Foreign Languages and Literatures

GEOGRAPHY

The requirements of geography majors studying for the AB or BS degree are 50 quarter hours in approved geography courses including 101, 121, 130, 260, 311, 312, 470, 477 and at least one course from each of the following groups:

a) 230, 330, 331, 332, 430; b) 201, 321, 325, 327, 429. Completion of the above requirements automatically completes the College of Arts and Sciences requirement of 9 hours in the major at the junior-senior level.

Students wishing to pursue the BS degree must obtain a strong background in the natural sciences. The selection of specific courses will be dependent on the student's interest and the advice of the faculty.

101 Elements of Physical Geography (5)
Systematic survey of earth-sun relationships, landforms, weather and climate, soils and natural vegetation as background for cultural geography which is recommended to follow this course. 4 lec, 2 lab. Not open to those who have had 201 prior to fall quarter, 1972.

121 Elements of Cultural Geography (4)
Systematic survey of settlement, population and economic activities in geographic studies.

130 Economic Geography (4)
Survey of locational economic patterns and their interrelationships.

140 World Regional Geography—Eurasia (4)
(fall) Physical background, land utilization and cultural development of Europe and Asia.

141 World Regional Geography—Africa and Oceania (4)
(winter) Physical background, land utilization and cultural development of Africa, Australia, New Zealand and Pacific Islands.

142 World Regional Geography—Western Hemisphere (4)
(spring) Physical background, land utilization and cultural development of United States, Canada and Latin America.

201 Environment and Man (4)
Geographic survey of environmental changes caused by man's activities. Focus on problems of pollution of air, water and biosphere and destruction of plant and animal communities.

230 Introduction to Urban Geography (4)
Urbanization, economic bases of cities, urban population characteristics and internal and external relationships in urban areas, with a special emphasis on the American city.

240 Geography of Eastern United States (3)
Systematic and regional survey of eastern United States. Emphasis on cultural and economic development as conditioned by ethnic and environmental effects.

241 Geography of Western United States (3)
Systematic and regional survey of western United States. Emphasis on cultural and economic development as conditioned by ethnic and environmental effects.

242 Geography of Ohio (3)
H. Wilhelm. Detailed regional study of physical background, settlement and economic development.

260 Map Reading and Interpretation (4)
(fall) *H. Bloemer.* Uses and abuses of maps. Interpretation of topographic, thematic and cadastral maps. Emphasis on map analysis. 2 lec, 2 lab.

301 Advanced Physical Geography (4)
Prereq: 101 or 201, 311 or 312. Application of physical geographic principles to specific research problems.

311 Elements of Meteorology (5)
Prereq: 101 or 201. *R. Isaac.* General survey of physical principles of weather. 4 lec, 2 lab.

312 Climate (5)
Prereq: 101, 201 or 311. *R. Isaac.* Exchanges of energy and moisture and their significance in man's utilization of earth's surface. 4 lec, 2 lab.

321 Advanced Cultural Geography (4)
J. Cobban. Systematic study of interaction of man and his societies with land. Emphasis on man's adaptation to and modification of earth's surface.

325 Principles of Political Geography (4)
Geographic basis of national power and international relationships.

327 Geographic Perspectives on Resource Management and Conservation (4)
Problems in management of renewable natural resources approached from geographic and ecologic viewpoints.

330 Transportation Geography (4)
Prereq: 130 or perm. Transportation systems in relation to economic structure of regions and as a basis for interregional linkages.

331 Geography of Agricultural Activity (4)
Prereq: 130 or perm. Spatial organization of agricultural systems at various levels of observation.

332 Geography of Manufacturing (4)
Prereq: 130 or perm. Locational considerations underlying spatial distribution of industrial activity.

340 Geography of Western Europe (4)
H. Wilhelm. Physical, cultural and economic geography of western Europe.

341 Geography of Eastern Europe (4)
Physical, cultural and economic geography of eastern Europe.

342 Geography of the Soviet Union (4)
Physical, cultural and economic geography of the Soviet Union.

345 Southeast Asia I (4)
J. Cobban. (fall) Systematic survey of physical and cultural aspects of Southeast Asia.

346 Southeast Asia II (4)
Prereq: perm. (winter) *J. Cobban.* Regional study of specific problems of Southeast Asia.

350 Geography of Northern Africa (4)
F. Bernard, B. Walter. Physical and cultural-historical geography and problems of economic development of northern Africa.

351 Geography of Sub-Saharan Africa I—Systematic (4)
(fall) *F. Bernard, B. Walter.* Systematic survey of physical and cultural aspects of tropical Africa.

352 Geography of Sub-Saharan Africa II—Regional (4)
(winter) *F. Bernard, B. Walter.* Regional survey of the 4 major areas of tropical Africa. A. East, B. West, C. Equatorial, D. Central and South.

355 Geography of South America (4)
Prereq: 101, 121 or perm. *L. Williams.* (fall) Physical, cultural and economic geography of the continent.

356 Geography of Middle America (4)
Prereq: 101, 121 or perm. (winter) *L. Williams.* Physical, cultural and economic geography of Mexico, Central America and the West Indies.

360 Cartography and Graphics (4)
Prereq: perm. *H. Bloemer.* Elementary principles and construction of map projections, maps and graphs.

361 Statistical Cartography (5)
Prereq: 360 or equiv and perm. *H. Bloemer.* Cartographic techniques of representing quantitative data on maps. 1 lec, 5 lab. Fee: \$5.

365 Air-Photo Interpretation (4)
Prereq: perm. *H. Bloemer.* Principles and techniques used in air-photo interpretation for geographers, geologists, military, community planners and engineers.

422 Population Geography (4)
Systematic survey of world population problems including distribution, composition, fertility, mortality, density, age-sex structure and impact of these on world population growth and resources.

429 Settlement Geography (4)
(spring) *H. Wilhelm.* Arrangement, pattern and diagnostic forms of rural settlement in terms of cultural and historical antecedents and environmental effect.

430 Advanced Urban Geography (4)
Nature of urban systems, urban land use, patterns and dynamics of population densities, urban hierarchies and spheres of influence and movement within and between urban places.

460 Advanced Cartography (5)
Prereq: 360 or equiv and perm. *H. Bloemer.* Principles of complete cartographic process from concept through design to finished product. 1 lec, 5 lab. Fee: \$5.

470 Development of Geographic Thought (4)
B. Walter. History of geography as a science and philosophy.

475 Research Methods in Geography (4)
Prereq: perm. (spring) *F. Bernard.* Research materials, methods of investigation and presentation of geographic data.

477 Quantitative Methods (4)
Prereq: perm. *R. Isaac.* Systematic survey of quantitative techniques employed by geographers.

490 Geographic Studies (1-5, max 10)
Prereq: perm. *F. Bernard* (G), *R. Gardula* (B, I), *R. Isaac* (C, D), *B. Walter* (E), *H. Wilhelm* (H), *H. Bloemer* (A), *staff* (D, F). Supervised studies in fundamentals of geographic research. A. Cartography, B. Economic, C. Meteorology and Climatology, D. Physical, E. Political, F. Regional, G. Resource Management and Conservation, H. Settlement, I. Urban.

GEOLOGY

Required courses for the BS degree in minimum preparation for a professional career in geology are 101, 102 and 103, 311, 312, 320, 330, 340, 350, 353, 360, 386, 387 and 454, with at least 9 hours at the 400 level. In addition, the following extradepartmental courses are required: Chem 121, 142 and 143, physics through 253 (recommended) or 203 and mathematics through 263B.

Requirements for the AB degree include the above except 387. Required extradepartmental courses are chemistry through 123 and Math 116.

The Geology Department also offers a special program which prepares the student to work in the field of water resources. This program is described under special curricula in the College of Arts and Science.

101 Earth Materials and Structure (4)

Nature and distribution of earth materials and their utilization as natural resources; discussion of earth structure, earthquakes, mountain building and continental drift. 3 lec, 2 lab. Not open to students who have had 283.

102 Surface Processes and Environmental Geology (4)

Consideration of those processes and resources that influence man's utilization of surface of the earth. 3 lec, 2 lab. Not open to students who have had 283. It is recommended that students who plan to take both 101 and 102 take 101 first.

103 Elements of Geology, Historical (4)

Prereq: 102. Earth history, emphasizing geologic history of North America. 2 lec, 2 lab, field trips. Not open to students who have had 205.

202 Common Minerals, Rocks and Fossils (3)

Study and identification of common minerals and rocks and common groups of fossils. 2 lec, 2 lab, field trips. Not open to students who have had 102.

270 World Mineral Resources (3)

(1st summer term) Major deposits of metal, non-metallic and mineral fuels resources which form backbone of modern industry. Economics and basic geologic controls of mineral production are reviewed. 3 lec with demonstrations. Not open to geology majors.

283 Geology for Engineers (5)

(spring) *S. Fisher*. Geologic principles applied to engineering projects and materials. 4 lec, 2 lab. Not open to students who have had 101.

310 Rocks and Minerals (5)

Prereq: 102 or 283. (winter) *G. Heien, W. Phelps*. Common minerals, rocks and related ores, including their classification, description, origin and use. 3 lec, 4 lab. Not open to geology majors.

311 Crystallography (3)

Prereq: Chem 142 or taken concurrently. (fall) *G. Heien*. Elements of crystallography and introduction to crystal chemistry. 2 lec, 2 lab.

312 Mineralogy (5)

Prereq: 311. (winter) *W. Phelps*. Descriptive and determinative mineralogy using physical and chemical properties. 3 lec, 4 lab.

320 Petrology (4)

Prereq: 312. (spring) *W. Phelps*. Rocks emphasizing origin, composition, field classification and identification. 3 lec, 2 lab.

330 Principles of Geomorphology (5)

102 or 204. (spring) *G. Smith*. Basic concepts of origin and development of landforms. Laboratory study of topographic maps and aerial photographs. 3 lec, 4 lab, field trips.

340 Invertebrate Paleontology (5)

Prereq: 103. (fall) *M. Sturgeon*. Invertebrate fossils emphasizing their morphology, classification, biologic relationships and geologic occurrence. 3 lec, 4 lab, field work.

350 Principles of Sedimentology (4)

Prereq: 320. (winter) *S. Fisher*. Principles of transport, deposition and diagenesis of sediments. 3 lec, 2 lab, field trips.

353 Principles of Stratigraphy (4)

Prereq: 350. Should be taken concurrently with 360. (spring) *J. Howard*. Basic concepts of stratigraphy, historical development of facies concept, principles of stratigraphic nomenclature and correlation. 3 lec, 2 lab, field work.

360 Structural Geology (5)

Prereq: 320, Phys 201, Math 263B or perm. Should be taken concurrently with 353. (spring) *R. Yeats*. Principles of rock deformation from field and laboratory evidence, interpretation of folded and faulted rocks, introduction to tectonics. 3 lec, 2 lab, field work.

386 Geologic Field Methods (3)

Prereq: CE 110 recommended, perm. (fall) Use of hand level, Brunton pocket transit, plane table and telescopic alidade, altimeter and aerial photographs in mapping. 6 lab.

387 Summer Field Geology (9)

Prereq: 320, 360 or perm. (8 weeks, summer) *R. Yeats*. Geologic mapping in deformed sedimentary, igneous and metamorphic terranes to include use of Brunton compass, hand level and air photos. Written field report will be required. Course conducted in eastern Nevada.

401 Introductory Oceanography (3)

Prereq: Chem 122, 18 hrs biology, geology or physics, perm. Survey of physical, chemical, biological and geological aspects of oceanography.

406 Geology of Ohio (3)

Prereq: 103 or perm. *M. Sturgeon*. Physiography, stratigraphy and economic geology of Ohio. 2 lec, 2 lab, field trips.

407 Topographic Map and Aerial Photo Interpretation (4)

Prereq: 330, 360 or perm. (winter) *G. Smith*. Principles of use of topographic maps and aerial photographs for study and interpretation of geologic and geomorphic features. 2 lec, 4 lab.

408 Statistical Applications in Geology (3)

Prereq: perm. (winter) *J. Howard*. Basic statistical techniques with particular applications of statistics to geology. 2 lec, 2 lab.

413 Optical Mineralogy (4)

Prereq: 320, Phys 202. (fall) *G. Heien*. Optical characteristics of minerals in polarized light; identification of minerals with petrographic microscope. 2 lec, 4 lab.

415 X-Ray Methods (3)

Prereq: Phys 203, perm. (winter) *G. Heien*. Principles of x-ray diffraction and x-ray crystallography; identification of minerals and analysis of mineral structures by powder method. 2 lec, 2 lab.

422 Igneous and Metamorphic Petrography (4)

Prereq: 413. (spring) *R. Yeats*. Petrogenesis of igneous and metamorphic rocks and their description and classification in thin section. 2 lec, 4 lab.

424 Sedimentary Petrography (3)

Prereq: 350, 413. (winter) *S. Fisher*. Identification and environmental analyses of sedimentary rocks in thin section and grain mounts. 2 lec, 2 lab.

426 Principles of Geochemistry (3)

Prereq: 320, Math 160B. (spring) *G. Heien*. Principles of geochemistry applied to various geologic environments, including principles of

thermodynamics applied to geologic systems, phase equilibria, solution geochemistry, isotope geochemistry and radioactive dating. 3 lec.

438 Glacial Geology (5)

Prereq: 330. (fall) *G. Smith*. Formation and behavior of glaciers, past and present; consideration of glacial processes, and causes and implications of ice ages. 3 lec, 2 lab, field trips.

439 Quaternary Geology (3)

Prereq: 438 or perm. (spring) *G. Smith*. Stratigraphic study of Quaternary deposits, with emphasis on North America; techniques of study of Quaternary deposits. 3 lec, field trips.

441 Invertebrate Paleontology: Index Fossils (4)

Prereq: 340. (winter) *M. Sturgeon*. Selected index genera and faunas. 2 lec, 4 lab, field work.

446 Principles of Micropaleontology (4)

Prereq: 340, perm. (winter) *J. Howard*. Biology, morphology, taxonomic characteristics and uses of microscopic fossils. 2 lec, 4 lab.

448 Principles of Paleocology (4)

Prereq: 340, 350, biology or zoology, 9 hrs, perm. (fall) *J. Howard*. Basic principles involved in reconstruction of paleoenvironments. 3 lec, 2 lab, field work.

454 Historical Geology (5)

Prereq: 340. (spring) *M. Sturgeon*. Earth history emphasizing geologic development and stratigraphy of North America. 4 lec, 2 lab, field trips.

460 Advanced Structural Geology (3)

Prereq: 360, 413. (winter) *R. Yeats*. Mechanical analysis of deformed rocks, structural analysis using stereonet, structural petrology, present-day crustal deformation. 3 lec.

470 Economic Geology—Metals (4)

Prereq: 320. (fall) *W. Phelps*. Principles of metallic mineral deposition and survey of major ore deposits of the world. 3 lec, 2 lab.

471 Ore Deposits (3)

Prereq: 470. (winter) *W. Phelps*. Texture, paragenesis and origin of metallic ores in polished sections. 2 lec, 2 lab.

473 Economic Geology—Non-Metals (3)

Prereq: 320. (fall) *S. Fisher*. Principles of nonmetallic mineral deposition and survey of nonmetallic and coal deposits of the world. 2 lec, 2 lab.

475 Petroleum Geology (4)

Prereq: 360. (fall) *S. Fisher*. Origin, migration and accumulation of petroleum and survey of major oil basins of the world. 3 lec, 2 lab.

476 Subsurface Methods (4)

Prereq: 475 or perm. (winter) Resume of drilling practices, sampling and logging by electric, radioactivity, temperature, neutron methods as applied to petroleum exploration and engineering projects. 3 lec, 2 lab.

480 Applied Ground Water Hydrology I (4)

Prereq: perm. (fall) *Ahmad*. Darcy's Law, permeability, laboratory and field measurement of permeability, steady and unsteady flow to a well, non-equilibrium equation of pumping test, analysis of pump test data. 3 lec, 2 lab.

481 Applied Ground Water Hydrology II (4)

Prereq: perm. (winter) *Ahmad*. Water well design, well development, testing of wells, design of a well field, interference of wells, study for a ground water basin, chemistry of ground water, ground water pollution. 3 lec, 2 lab.

485 Applied Geophysics (4)

Prereq: perm. (spring) *Ahmad*. Introductory course on seismic, gravity and electrical prospecting. 3 lec, 2 lab.

488 Geologic Field Reconnaissance (2 or 3)

Prereq: perm. (winter) Spring vacation period geologic field trips to selected areas in eastern and central United States with pertinent conferences, readings and reports.

490 Seminar in Geology (1, max 3)

Prereq: perm. Several seminars on specific topics in geology will be offered yearly. It is recommended that all majors participate in at least 1 seminar.

491 Geologic Studies (1-4, max 8)

Prereq: perm. *Ahmad* (D), *Fisher* (E,G), *Heien* (A,E), *Howard* (F,G), *Phelps* (E,G), *Smith* (B), *Sturgeon* (C,F,G), *Yeats* (H,I). A. Geochemistry, B. Geomorphology, Glacial Geology and Physiography, C. History of Geology, D. Hydrogeology, E. Mineralogy, Petrology and Economic Geology, F. Paleontology, G. Sedimentation and Stratigraphy, H. Structural Geology, I. Tectonics. Supervised studies in fundamentals of geologic research.

GERMAN

See Foreign Languages and Literatures

GOVERNMENT

The major requirement for the AB degree is a minimum of 45 hours, including Govt 101 and 102. Majors must also take at least one course at the 300 level or above in each of the four areas of: American government; comparative government; international relations; political theory. Fulfillment of this distribution requirement also guarantees completion of the requirement of the College of Arts and Sciences of nine hours at the junior-senior level.

101 American National Government (4)

Not open to jrs and srs. Constitutional basis and development, political processes and organization of American national government.

102 American National Government (4)

Prereq: 101. Continuation of 101. Not open to jrs and srs. Concerned with administration and policy making processes of national government in selected areas *i.e.*, welfare, civil rights, defense, etc.

304 Politics in the American States (5)

Prereq: 101-102. *J. Tucker*. Comparative analysis of state political systems. Emphasis on structure and process of policy-making of states within a federal context.

306 Politics of Appalachia (4)

Prereq: 101 or perm. Analysis of political processes of Appalachia. Emphasis on relationship between politics and economic development of the region. Among major policy areas considered are mining and its regulation, the War on Poverty in Appalachia and the politics of taxation in the region.

320 Urban Politics (5)

Prereq: 101-102. Impact of urbanization on structure and functions of municipalities. Emphasis on role of government in resolving community conflict. (Formerly 303)

323 Black Politics in the United States (4)

Prereq: 101 or perm. Appraisal of economic and institutional structure of American society through social doctrines enunciated by black political theorists, which serve as inspiration and ideology for black political movements. Examines socio-political societies in various parts of Africa and interprets black political movements in cultural, philosophical, ideological and technological terms. (Formerly 305)

330 Introduction to Comparative Government and Politics (4)

Introduction to dynamics, structures and comparison of contemporary political systems and processes.

331 Comparative Government (4)

Government and politics of Great Britain and another Commonwealth country.

332 Comparative Government (4)

Government and politics of France and Germany.

333 Comparative Government (4)

Government and politics of Communist party states with particular emphasis on the Soviet Union.

335 The Politics of Developing Areas (4)

Prereq: 8 hrs or perm. Major theories and problems of political, socio-cultural and economic development in new nations of Asia, Africa and Latin America, with special emphasis on heritage of colonialism, struggle for independence and political adjustments to rapid social and technological change.

341 Government and Politics of Africa (5)

Prereq: 8 hrs government or history. *E. Baum, R. Weisfelder*. Development and structure of modern African states with emphasis on political processes in tropical Africa. (Formerly 441)

350 International Relations (5)

Prereq: 8 hrs. Contemporary international system and major forces and conditions which affect current international politics. Special emphasis on role of conflict and need for peaceful conflict resolution.

351 Current International Problems (4)

Prereq: 350 or perm. Selected case studies, crises and current issues illustrating major problems of contemporary international politics.

371 Ancient and Medieval Political Thought (5)

Prereq: 11 hrs. *R. Hunt*. Major figures and basic concepts characteristic of political thought in ancient and medieval periods. Emphasis on original works of Plato, Aristotle, St. Augustine, Dante.

372 Modern Political Thought (5)

Prereq: 11 hrs. *R. Hunt*. Basic philosophic conceptions of the state: Machiavelli to Hegel. Emphasis on original works of major political philosophers of this period.

373 Contemporary Political Thought (5)

Prereq: 11 hrs. *R. Hunt*. Emphasis on tradition of political economy, utilizing original works of such individuals as J. S. Mill, K. Marx and F. Engels.

390 Political Workshop (10-15)

Prereq: 101-102 and in 1 other course in government. Intensive analysis of political organizations and campaigning combined with field experience in campaigning.

401 American Constitutional Law (3)

Prereq: 14 hrs government or history. *R. Gusteson*. Principles underlying American constitutional government. Consideration of leading cases with reference to interpretation of the Constitution of the United States.

402 American Constitutional Law (3)

Prereq: 14 hrs government or history. Continuation of 401. See 401 for description.

405 American Political Parties (3)

Prereq: 11 hrs. *R. Gusteson*. Origin, growth, organization and methods of parties; suffrage, nominations and elections; role of parties in a democracy.

409 Law Enforcement (5)

Prereq: 11 hrs. *R. Schaefer*. Role, function and problems of American judicial, prosecutory, policing and correctional systems in the political process. Crime and law as functions of social and political systems. Examination of relationship of law and social change in industrialized, urbanized and technical society.

410 Public Policy (5)

Prereq: 101-102. Analysis of major forces determining public policy. Policy areas, such as education, health and social welfare examined and relationship between information and decision-making explored.

411 Public Administration (4)

Prereq: 11 hrs. *E. Collins*. Development of administrative organizations, current ideas in organizational theory, nature of federal bureaucracy, fiscal management and control of administrative action.

412 Public Personnel Administration (4)

Prereq: 11 hrs. *E. Collins*. Philosophy, problems and procedures of public personnel management: recruitment, training, promotion policies, position classification and employer-employee relations.

413 Administrative Law (5)

Prereq: 11 hrs. *E. Collins*. Organization, functions and procedures of selected national regulatory agencies; principles affecting adminis-

trative discretion, administrative power over private rights, enforcement and judicial control of administrative decisions.

414 Public Administrative Organization and Behavior (5)

Prereq: 411 or perm. *R. Eagle*. Analysis of ways people behave in public administrative organizations, emphasizing interpersonal and interagency relationships within bureaucracies and interactions of administrators with private individuals, interest groups, legislators, the press, public opinion and political parties.

415 The American Presidency (3)

Prereq: 11 hrs. *R. Gusteson*. Analysis of office of national chief executive and its place in American political system. Attention given to constitutional status and powers, functional development and interrelationship of man and office.

417 Legislative Processes (5)

Prereq: 11 hrs. *R. Eagle*. Environments in which legislatures function, various participants in legislative processes, formal and informal legislative structure and procedures and politics of legislative reform. Classroom simulations provide opportunities for student role playing. Emphasis is on American national and state legislatures. (Formerly 408)

418 Pressure Groups and Public Opinion (5)

Prereq: 11 hrs. Organization and tactics of pressure groups and their impact on policy-making process. (Formerly 406)

426 American Foreign Policy (5)

Prereq: 11 hrs government or history. *E. Collins*. Consideration of problems involved in formulation and execution of foreign policy. Particular emphasis on contemporary problems of American policymakers. (Formerly 420)

427 Formulation of American Foreign Policy (5)

Prereq: 350 or 426. Covers institutional and administrative as well as political and more informal processes whereby foreign policy decisions are formulated and implemented in United States. (Formerly 421)

432 Government and Politics of the Soviet Union (5)

Prereq: 11 hrs, incl 333 or course in Soviet history. *D. Williams*. Institutions, nature and policies of Soviet system of government, including historical background, ideology and organization, as well as dynamics of ideology and power and nature of totalitarian systems.

433 Soviet Foreign Policy (5)

Prereq: 11 hrs, incl 333 or a course in Soviet history. *D. Williams*. Analysis of foreign policies of U.S.S.R. Historical, ideological, strategic and other influences covered. Relations with bloc countries included.

434A Government and Politics of Latin America (4)

Prereq: 11 hrs of government or course in Latin American history. *M. Hochwald*. Contemporary governments of Latin America. Emphasis on structure of political parties and institutions. (Formerly 334A)

434B Government and Politics of Latin America (4)

Prereq: 434A or perm. *M. Hochwald*. Revolution in Latin America. Emphasis on Mexican and Cuban revolutions. (Formerly 334B)

438 Government and Politics of Germany (5)

Prereq: 11 hrs including 332 or perm. *R. Bald*. Major political processes, personalities and institutions of contemporary West Germany, including key foreign policy issues.

444 Race and Politics in Southern Africa (5)

Prereq: Any course on Africa. *R. Weisfelder*. Political dynamics of race relations among diverse peoples of Southern Africa. Emphasis on competing ideologies of *apartheid* and black liberation. Appropriate American and international responses will be considered. (Formerly 462)

445 Government and Politics of Japan (4)

Prereq: 11 hrs of government or Asian history. *W. Elsbree*. Political institutions and processes of Japan with emphasis on developments since 1945.

446 Government and Politics of China (4)

Prereq: 11 hrs of government or Asian history. *W. Elsbree*. Political institutions and processes and major political developments in modern China.

447A Government and Politics of Southeast Asia (4)

Prereq: 11 hrs government or history. *P. van der Veur*. From ancient empires to western colonial rule; rise of nationalism and arrival of independence in post WW II period. Main emphasis on political developments in Indonesia and the Philippines.

447B Government and Politics of Southeast Asia (4)

Prereq: 11 hrs government or history. Continuation of 447A but can be taken independent-

ly. Period of independence since WW II with main emphasis on political developments in Indonesia and Malaysia.

452 Theory and Methodology of International Relations (5)

Prereq: 350 or perm. Major theoretical approaches to study of international relations. Includes recent work in areas such as survey research, communications, decision-making, simulation, strategy and game theory. Both traditional theories and behavioral models will be examined. (Formerly 450)

455 International Law (5)

Prereq: 350 or perm. *S. Kim*. Role of international law in interstate relations and international organization.

456 International Organization (5)

Prereq: 350. *S. Kim*. Analysis of nature, development, structure and functions of international organizations with particular emphasis on United Nations.

461 New States in World Politics (4)

Prereq: 350. *E. Baum*. Detailed examination of impact of new states on international relations. Particular attention given to problems and foreign policies of new states.

474 19th Century Political Thought (4)

Prereq: 15 hrs government or European history. *W. Elsbree*. Movements in 19th century political thought in Europe; liberalism, socialism, irrationalism among subjects covered.

475 Studies in Political Thought (5)

Prereq: one course in political theory or perm. *R. Hunt*. Selected issues in contemporary political theory, *e.g.*, proposals for reform of political system, role of intellectuals in politics, analysis of key political concepts.

476A American Political Thought (3)

Prereq: 11 hrs of government or history. *A. Pringle*. Origin and development of political ideas from colonial period through slave controversy.

476B American Political Thought (3)

Continuation of 476A. Begins with Social Darwinism and concludes with contemporary political ideas in America.

479 Latin American Political Thought (4)

Prereq: 11 hrs. Evolution of Latin American thought from independence movements to present. Emphasis on representative thinkers of major intellectual controversies. Attention paid to influence of foreign ideologies and socio-economic conditions. Students will read original sources or their translations.

481 Modern Political Analysis (5)

Prereq: 20 hrs, perm. *J. Tucker*. Examination of problems of knowledge in social sciences with particular emphasis on political science. Analysis of major theories or approaches developed in political science recently. (Formerly 471)

482 Quantitative Political Analysis (5)

Prereq: 481 or perm. *D. Dabelko*. Designed to show relevance of scientific research techniques to study of politics. (Formerly 472)

485 Personality and the Political Process (5)

Prereq: 15 hrs or perm. *D. Dabelko*. Relevance of personality characteristics, psychological mechanisms and life history factors in explaining political behavior. Topics are behaviorism, psychoanalytic theory, authoritarianism, dogmatism and other personality traits as related to political beliefs and behavior. (Formerly 473)

490 Studies in Government (3-5)

Prereq: 11 hrs, perm. Intensive study of special topics in field of government, including American government and politics, comparative government, international relations, political theory and public administration.

491 Research in Government (1-5, max 10)

Prereq: 18 hrs, perm. Research in selected fields of government.

498 Problems in Government (1-5, max 10)

Prereq: 18 hrs, perm. Research or directed reading based on student's special interest.

GRAPHIC DESIGN

See Design, Graphic

GREEK

See Foreign Languages and Literatures

HAUSA

See Foreign Languages and Literatures

HEALTH, PHYSICAL EDUCATION AND RECREATION

- 100A Archery (1)
- 100B Badminton (1)
- 100C Basic Movement (1)
- 100D Basketball (1)
- 100E Boating (1)
- 100F Bowling (1)
- 100G Conditioning and Weight Training (1)
- 100H Crosseball (1)
- 100I Curling (1)
- 100J Fencing (1)
- 100K Folk and Dance (1)
- 100L Golf (1)
- 100M Intermediate Golf (1)
- 100N Gymnastics (1)
- 100O Handball (1)
- 100P Judo (1)
- 100Q Karate (1)
- 100R Life Saving (1)
- 100S Riding (1)
- 100T Skating (1)
- 100U Figure Skating (1)
- 100V Advanced Figure Skating (1)
- 100W Squash (1)
- 100X Swimming (1)
- 100Y Intermediate Swimming (1)
- 100Z Tennis (1)
- 100.1 Intermediate Tennis (1)
- 100.2 Volleyball (1)
- 100.3 Social Dance (1)
- 100.4 Scuba (1)
- 100.5 Water Polo (1)
- 100.6 Modern Dance (1)
- 100.7 Ice Hockey Fundamentals (1)
- 100.8 Lacrosse (1)
- 100.9 Softball (1)

- 101A Intermediate Judo (1)
- 101B Intermediate Karate (1)
- 101C Advanced Tennis (1)
- 101D English Riding and Jumping (1)
- 101E Cycling (1)
- 101F Hiking (1)

The following courses are for HPER majors and minors only.

- 103 Beginning Swimming (1)
Nonswimmers and beginners.
- 104 Intermediate Swimming (1)
Prereq: 103 or equiv. Students who can swim; instruction in basic strokes, plain and surface diving.
- 105 Advanced Swimming (1)
Prereq: 104 or equiv. Analysis and perfection of 9 basic styles of swimming; diving.
- 107 Beginning Modern Dance (1)
Basic principles of dance technique. Simple movement progressions.
- 108 Intermediate Modern Dance (1)
Prereq: 107 or equiv. More complex movements and floor progressions involving relationships of time, space and dynamics.
- 109 Advanced Modern Dance (1)
Prereq: 108 or equiv. Experimentation in movement form and composition.
- 115 Rhythmics (2)
Fundamentals, etc.
- 141 Golf (1)
Skills, knowledge and rules.
- 202 Personal and Community Health (4)
Hygienic practices and appreciation of means whereby health of individual and group may be maintained.
- 204 Drugs, Alcohol and Tobacco (3)
Prereq: 202. Indepth study of contemporary issues—drugs, alcohol and tobacco for prospective teacher.
- 218 Life Saving and Water Safety (1)
Prereq: 105 or equiv. Principles and practices of life saving.
- 220 Water Safety for Instructors (1)
Prereq: 218. For those who hold valid American Red Cross Life Saving Certificate. Includes analysis of swimming, life saving techniques and teaching practices.

Health, Physical Education and Recreation

221 Tennis and Badminton (2)

(fall) Skills, strategy, tactics and rules of tennis and badminton.

222 Tumbling and Gymnastics (3)

Tumbling, gymnastics and related activities.

223 Track and Field (2)

Participation in track and field activities suitable for girls and women.

227 First Aid (3)

Principles and practices of American Red Cross first aid. Standard certificate is granted if requirements are met.

250 Recreation Leadership (3)

Lectures, discussion, group dynamics in social recreation and handicrafts.

252 Kinesiology (4)

Prereq: Zool 301. Analysis of human motion based on anatomical and mechanical principles.

261 Introduction to Physical Education (1)

Lectures, discussion and visual aids pertaining to scope and content of professional physical education.

262 Field Hockey and Soccer (2)

Skills, tactics, strategy and rules.

263 Basketball and Volleyball (2)

Skills, tactics, strategy and rules.

264 Softball and Archery (2)

(spring) Skills, tactics, strategy and rules.

265 Program Skills (2)

Teaching methods, materials, theory and practice in soccer, speedball, volleyball and officiating.

266 Elementary School Physical Education Workshop (2)

Theory, teaching methods, techniques and materials in elementary school physical education, with emphasis on appropriate rhythmical, individual and group activities.

267 Program Skills (2)

Teaching methods, techniques, materials, theory and practice in swimming, tennis and officiating.

270 Teaching of Physical Education (2)

Lab and lecture experiences for teaching physical education in elementary school. Designed for elementary education students.

300C Elementary School Physical Education I (3)

Theory, teaching methods, techniques and materials in elementary school physical education with emphasis on basic movement education for levels K-3.

301C Elementary School Physical Education II (3)

Theory, techniques and materials for elementary school physical education program with emphasis on lead-up games, rhythmical and sport and recreation skills for levels 4-6.

302C Motor Learning (4)

Prereq: Psy 375, Zool 345. Presentation of psychological, social and physiological basis of performance and application of these theories to physical education.

305 Coaching of Swimming (2)

Prereq: jr or sr rank.

314 Camping (4)

Introduction to and experiences in different methods of camping and various skills associated with camping.

318 Coaching of Tennis (2)

Prereq: jr or sr rank.

320 Coaching of Wrestling (3)

Prereq: jr or sr rank.

321 Program Skills (2)

Teaching methods and materials, theory and practice in archery, handball, bowling and badminton.

322 Program Skills (2)

Teaching methods, techniques, materials, theory and practice in stunts and tumbling, apparatus, demonstrations and exhibitions, marching and conditioning activities.

323 Program Skills (2)

Teaching methods, techniques, materials, theory and practice in wrestling and golf.

324 Coaching of Soccer (2)

Prereq: jr or sr rank.

328 Instructor's First Aid (4)

Prereq: current first aid certificate. As prescribed and certified by the American Red Cross.

329 Athletic Training (4)

Prereq: Zool 301, Zool 345 and perm. Treatment and prevention of athletic injuries.

333 Theory of Adapted Activities (3)

Prereq: Zool 301. Organization of physical activity programs adapted to needs of atypical individuals.

334C Program Techniques (1-3)

Prereq: jr or sr rank. Practice in organization, management and teaching in public schools and university service classes. Assignments available in health education, physical education and recreation classes. Course may be repeated for up to 3 hrs credit with approval.

337 Dance Composition (1)

Prereq: 109 or equiv. Basic principles of composition and presentation.

339M Athletic Officiating (3)

(fall only) Football—rules, mechanics and procedures in officiating. Practice under actual game conditions in Intramural Sports Program. State certification upon successful completion of National Examination given in football. OHSAA fee for certification and books.

340M Athletic Officiating (3)

(winter only) Basketball—Rules, mechanics and procedures in officiating. Practice under actual game conditions in Intramural Sports Program. State certification upon successful completion of National Examination given in basketball. OHSAA fee for certification and books.

340W Sports Officiating I (1)

Officiating field hockey and soccer.

341M Athletic Officiating (3)

(spring only) Baseball—Rules, mechanics and procedures in umpiring. Practice under actual game conditions in Intramural Sports Program. State certification upon successful completion of National Examination given in baseball. OHSAA fee for certification and books.

341W Sports Officiating II (1)

Officiating basketball and volleyball.

342W Sports Officiating III (1)

Officiating softball, track and field.

345 Camp Leadership (2)

Responsibilities of camp personnel at executive, administrative, supervisory and functional levels. Includes different types of organized camps and their individual programs.

350 Independent Study (1-3)

Prereq: perm. Study and/or research in selected fields related to health, physical edu-

cation, athletics, intramurals or recreation under direction of HPER undergraduate committee and faculty member.

351 Coaching of Golf (2)

Prereq: jr or sr rank. Theory and practice.

352 Coaching of Ice Hockey (3)

Prereq: jr or sr rank. Theory and practice.

353 Coaching of Lacrosse (3)

Prereq: jr or sr rank. Theory and practice.

365 Coaching of Basketball (3)

Prereq: jr or sr rank. Theory and practice.

366 Coaching of Baseball (3)

Prereq: jr or sr rank. Theory and practice.

367 Coaching of Football (3)

Prereq: jr or sr rank. Theory and practice.

368 Coaching of Track (3)

Prereq: jr or sr rank. Theory and practice.

369 Teaching of Health (5)

Prereq: HPEC 202; EdSe 250. Instruction, principles and curricula used in presenting health information to pupils in elementary and secondary schools.

370 Community Health Programs (4)

Prereq: 202, 369 or perm. Institutional frameworks for promoting and maintaining health of the people in community, state and nation.

371 Theory and Practice in Sports Activities (2)

Prereq: 221, 222, 223, 262, 263, 264. (fall, spring) Methods and materials for teaching team and individual activities.

374 Theory and Practice in Rhythmic Activities (1)

Prereq: 108 and 115. Methods and materials for rhythmic programs for various school levels.

380 Safety Education (4)

Preparation for assuming responsibility for programs of safety education and accident prevention in schools, industry and public services.

381 Administration of Intramural Sports (4)

Organizing and administering a program of intramural sports for all age levels.

404 History and Principles of Physical Education (5)

Principles underlying physical education in modern program of education.

Hearing and Speech Sciences

406 Organization and Administration of Physical Education (5)

Prereq: jr or sr rank. Organizing and administering physical education, recreation and athletics in schools and colleges.

409 Tests and Measurements (4)

Prereq: sr rank. Administration and evaluation of tests in health, physical education and athletics; practice in handling test data by elementary statistical methods.

414 Physiology of Exercise (4)

Fundamental concepts describing reaction of organ systems to exercise; study of work produced by muscle; special areas include sport conditioning, muscular fatigue, physiology and nutrition in exercise, weight control and exercise; physical fitness; exercise and environmental stresses; review of recent research in exercise physiology and human performance.

435 Recreation and Physical Education for the Mentally Retarded and Learning Disabled (5)

Prereq: perm. Preparation for presenting activities and evaluating mentally retarded and learning disabled children and youth in areas of body mechanics, physical fitness, games of low organization, sports, rhythms, stunts, tumbling and recreation activities.

449 Community Recreation (4)

Prereq: sr rank. History of play movement, programs and program building, administration of playgrounds, community centers and recreational activities.

453 Clinical Observation and Practice in Physical Medicine and Rehabilitation (6)

Prereq: Zool 301, 345 or equiv. (summer) Concentrated summer school field course at V.A. hospital, Chillicothe. Instruction by hospital corrective therapy staff. Open to sr majors or grad students in physical education.

495 School Health Problems (5)

Prereq: 369 and sr rank. Principles, problems, organization and administration of school health programs, including school and community relationships.

make application for this certificate through the College of Education. Students who do not intend to qualify for this certificate, and therefore do not intend to student teach, must apply personally to the director of the School of Hearing and Speech Sciences for admission to the clinical major program and will be required to complete special academic and practicum requirements in the major and in related fields. All majors must earn a grade of C or above in all HSS courses.

107 Voice and Articulation (2)

Prereq: Open only to HSS majors. Designed to help each student recognize, evaluate and compensate for or improve speech production characteristics. Speech proficiency judgement required for all majors will be performed each qtr in this course.

108 Introduction to Speech Disorders (3)

Symptoms, causes, effects and evaluation of disorders of speech, voice and language.

309 Phonetics (3)

(fall, spring) Speech sounds from a sociological, physiological and acoustical point of view. Mastery of International Phonetic Alphabet and practice in English phonetic transcription. Phonetics proficiency requirement for HSS majors will be administered in this course.

310 Language Development (5)

Prereq: 309. (winter) Provides foundation in normal speech and language development. Development of meaning, symbolic representation, morphology and syntax.

313 Respiratory and Phonatory Mechanisms (3-4)

(fall) Structures, musculature and functions involved in respiration, phonation, resonance and articulation for speech.

314 Articulatory and Auditory Mechanisms (3-4)

Prereq: 313. (winter) Structures, musculature, functions and neurology involved in audition and speech.

336 Speech and Hearing Disorders in the Public Schools (3-4)

Nature, causes and treatment of defective speech in public schools with special reference to role of classroom teacher. Not open to HSS majors.

345 Social Dialects (4)

Prereq: 309, 310, HSS majors only. (winter) Introduction to study of social dialects. Problems and controversies surrounding various issues of speakers of social dialects. Training

HEARING AND SPEECH SCIENCES

The curriculum in hearing and speech sciences is designed to give the student a basic understanding of the causes and treatment of various speech and hearing disorders. Students who plan to qualify for an Ohio Teaching Certificate in Speech and Hearing Therapy

in recognition of dialectal variations and in teaching standard English to speakers of other dialects.

350 Speech Science (3-4)

(winter) Physical properties of speech signal. Analysis of speech and speech reception.

351 Laboratory Methods in Speech Science (3-4)

Prereq: 350. (spring) Physical parameters of speech signal. Laboratory exercises and experiments emphasized. 2 lec, 3 lab.

370 Basic Audiology (3-4)

Prereq: 314, 350. (spring) Measurement of hearing with pure tone techniques and interpretation of results of such measurements in terms of social and educational handicap.

371 Auditory Rehabilitation (3-4)

Prereq: 370, HSS majors only. (fall, winter) Basic remedial procedures employed with hearing handicapped. Practice in planning lessons in speech reading and auditory training.

411 Advanced Phonetics (3-4)

Prereq: 309. History of phonetics in linguistics and experimental investigation of speech sound production. Advanced training in phonetic transcription.

415 Stuttering (5)

Prereq: HSS majors only; 9 hrs psychology. (winter) Consideration of causes, types and effects of stuttering. Evaluation of stuttering. Practical consideration of therapy for stutterers, with emphasis on children's problems.

418 Disorders of Articulation (5)

Prereq: HSS majors only; 309, 310. (fall) Phonetic acquisition, articulation evaluation. Emphasis on practical approaches to therapy for individuals with articulation disorders.

419 Disorders of Voice (4)

Prereq: HSS majors only; 313. (spring) Consideration of types and causes of functional and organic voice problems. Evaluation of phonatory problems. Emphasis on practical approaches to therapy.

422 Diagnostic Procedures in Speech Pathology (3-4)

Prereq: 12 hrs speech pathology, 9 hrs psychology. (spring) Types of diagnosis in evaluation of speech and language problems. Screening tests; use of statistics in testing; basic interview and history procedures.

424 Neuropathologies of Speech and Language (3-4)

Prereq: 313, 314. (fall, winter) Types, causes and syndromes of more significant pathologies of speech and language. Particular attention paid to neurological disorders.

433 Professional Training Seminar (3-4)

Prereq: sr rank, perm. Seminar in concepts underlying therapy procedures. Application of psychological, physiological and neurological principles in various rehabilitation approaches. Lab time required.

437 Speech and Hearing Therapy in the Public Schools (2)

Prereq: eligibility for student teaching. Methods, organization and implementation to speech and hearing programs in public schools. Must be taken concurrently with student teaching.

440A Sophomore Practicum (1)

Prereq: HSS majors only. Lectures and videotapes of diagnosis, therapy planning, therapy and various areas of the profession. 1 meeting per wk. Required of each student each qtr of soph yr.

440B Sophomore Practicum (1)

Prereq: HSS majors only. Continuation of 440A. See 440A for description.

440C Sophomore Practicum (1)

Prereq: HSS majors only. Continuation of 440A,B. See 440A for description.

441A Junior Practicum (1)

Prereq: 440A,B,C. Observation of and assignment to diagnosis, planning of therapy, therapy activity. One staff meeting a wk plus clinic time. Repeated each qtr of jr yr. HSS majors only. 440C and 441A can be concurrent.

441B Junior Practicum (1)

Prereq: 440A,B,C; HSS majors only. Continuation of 441A. See 441A for description.

441C Junior Practicum (1)

Prereq: 440A,B,C; HSS majors only. Continuation of 441A,B. See 441A for description.

442A Practicum (1-3)

Prereq: No grade below C on HSS courses, or perm of SHSS director and clinic coordinator. Diagnosis, planning of therapy, therapy experience. Ratio of 3 clock hrs a wk per qtr hr. May be repeated. Accumulated credit over 2 hrs must be approved. Sr HSS majors only.

History

442B Practicum (3-15)

Diagnosis, planning of therapy, therapy experience. Ratio of 3 clock hrs a wk per qtr hr. Apply in writing to HSS undergraduate coordinator.

443 School and Clinical Programs (4)

Prereq: HSS majors only. (winter) Organization, planning and function in public school, community and agency programs. Prerequisite to student teaching.

444 Disorders of Language (4)

Prereq: 310, 418; HSS majors only. (spring) Introduction to study of disorders of language in children. Diagnosis of problems, assessment of language abilities. Methodologies and techniques in perceptual, psychomotor and language and speech training.

472 Auditory Disorders in Children (3-4)

Prereq: 370, 371, 424; HSS majors only. (winter, spring) Emphasis on identification audiometry and differential diagnosis of children with suspected auditory disorders.

479 Basic Manual Communication (1)

Prereq: HSS majors only. (fall, winter, spring, summer) Basic instruction and practice in fingerspelling and signing used by and for the deaf and hard of hearing.

480 Advanced Manual Communication (1)

Prereq: 479; HSS majors only. (fall, winter, spring, summer) Advanced instruction and practice in fingerspelling and signing used by and for the deaf and hard of hearing.

498 Special Problems (3-5, max 12)

Prereq: written proposal and perm in qtr prior to registration. Not open to graduate students.

499 Independent Reading in Speech Pathology, Audiology and Speech Science (3-5, max 12)

Prereq: written proposal and perm in qtr prior to registration. Not open to graduate students.

HISTORY

The major requirement for the AB degree consists of a minimum of 48 hours, including Hist 101-102-103, 211-212-213 (unless excused as the result of taking a placement test) and 24 hours at the 300-400 level with at least two courses selected from each level. Beyond Hist 213 the following minimum hours

are required: six hours in United States history, six hours in European history and six hours from the following fields — Ancient, Latin America, Africa, Middle East, Asia. Hist 101-102-103 should be taken during the freshman year and Hist 211-212-213 during the sophomore year. Courses in economics, geography, government and sociology are suggested as electives.

101 Western Civilization in Modern Times (4)

Renaissance to 1648: Renaissance, Reformation, origins of national state system, diplomacy and imperialism as applied to Portugal, Spain and Hapsburg Empires, and commercial and scientific revolutions. If possible 101-102-103 should be taken in sequence.

102 Western Civilization in Modern Times (4)

Continuation of 101. Covers 1648 to 1848: absolutism, constitutionalism, operation of coalition diplomacy and imperialism as applied to France and Britain; westernization of eastern Europe, enlightenment, French Revolution, agricultural, commercial and industrial revolutions and growth of ideologies—liberalism, socialism and nationalism. If possible 101-102-103 should be taken in sequence.

103 Western Civilization in Modern Times (4)

Continuation of 101-102. Covers 1848 to present: continued industrial revolution and spread of liberalism, socialism and nationalism; rise and fall of German bid for power in 2 world wars; new ideologies of materialism, positivism, Social Darwinism, irrationalism, totalitarianism; Russian and Chinese revolutions and international communism; rise and fall of western empires in Africa and Asia. If possible 101-102-103 should be taken in sequence.

111 The Origins of Western Civilization (4)

Birth of civilization in Near East, culture of Greece and Rome, coming of Christianity and medieval European states surveyed. Emphasis upon cultural contributions of these earlier societies to modern western civilization.

211 History of the United States (4)

Political, diplomatic, social and economic development of American history. Covers 1607 to 1828: colonial America, founding of the new nation and early national period. If possible 211-212-213 should be taken in sequence.

212 History of the United States (4)

Continuation of 211. Political, diplomatic, social and economic developments of Amer-

ican history. Covers 1828 to 1900: Jacksonian democracy, territorial expansion, sectionalism and controversy, Civil War, reconstruction and impact of expanded Industrial Revolution. If possible 211-212-213 should be taken in sequence.

213 History of the United States (4)

Continuation of 211-212. Political, diplomatic, social and economic development of American history. Covers 1900 to present: progressive movement, WW I, prosperity and depression, WW II and problems of cold war era. If possible 211-212-213 should be taken in sequence.

H297 European History, Honors (4)

Prereq: admission to Honors College. Europe from 1848 to present.

H298 United States History, Honors (4)

Prereq: admission to Honors College. United States from 1607 to present.

315A History of the Black Man in America to 1860 (3)

M. Fletcher. Beginning with introduction of slavery in 1619, course deals with black man's role in America to the beginning of the Civil War. Concerns slavery, abolition and the many attempts by the black people to improve their position.

315B History of the Black Man in America Since 1860 (3)

Prereq: 315A or perm. *M. Fletcher.* Concerns Emancipation and its continuing effects on the black man in America. Life in the South, migration to the North and conservative and radical attempts by the black community to deal with these problems.

317A Ohio History to 1851 (3)

T. Smith. Ohio to 1851: prehistoric Ohio; early exploration, settlement, government; statehood and economic development. Formation of political parties, anti-slavery movement, constitutional change. Biographical sketches.

317B Ohio History Since 1851 (3)

Prereq: 317A, or perm. *T. Smith.* Ohio since 1851; pre-Civil War politics, Civil War. Economic and political transition during post-Civil War. 20th century problems. Biographical sketches.

321A History of the Military in America: 1600 to 1898 (3)

M. Fletcher. Military institution in American history; role of technology in warfare; innovations and reforms in the military; war and its conduct; military and civilian society in war and peace.

321B History of the Military in America: 1898 to Present (3)

Prereq: 321A or perm. *M. Fletcher.* Continuation of 321A. See 321A for description.

323A Latin American Survey, Colonial Period (3)

J. Cunningham. Pre-Columbian civilization; conquest and colonization; evolution of institutions; wars for independence.

323B Latin American Survey, National Period (3)

J. Cunningham. Demolition of colonial order and struggle for nationality in the 19th century; 20th century reform, revolution and development of modern nation states.

325 Inter-American Relations (3)

J. Cunningham. Diplomatic history of Latin America since independence; state-to-state relations within Latin America; relations with the United States, western Europe and communist nations; participation in world wars and in international organization.

329A Ancient History—Near Eastern Civilizations (3)

D. Richter. Prehistoric eras, origins of Mediterranean civilizations, problems of ancient chronology, civilizations of Sumerians, Babylonians, Egyptians, Assyrians, Biblical Hebrews and Persians. Stresses archaeological and literary sources, comparative social and religious concepts, acculturation, contributions to western civilization.

329B Ancient History—Hellenic Civilization (3)

D. Richter. Aegean prehistory, Minoan civilization, Mycenaean Greeks, Dorian invasions, Greek Renaissance, growth of the polis, Athenian society and culture, Persian and Peloponnesian Wars, political history of Greece to Alexander. Stresses archaeological sources, mythology and drama, Hellenic contributions to western civilization.

329C Ancient History—Roman Civilization (3)

D. Richter. Early peoples of Italy, Etruscans, constitutional development of the Republic, growth of the empire, the civil wars, history of the principate to Constantine. Stresses archaeological sources, Latin literature, Roman life and institutions, Roman contributions to western civilization.

335A Survey of Islamic Civilization to 1800 (3)

G. Doxsee. Islamic history and civilization from rise of Islam to end of 18th century. Includes discussion of role of prophet Muham-

mad, doctrines and institutional system of Islam, medieval Islamic caliphates and their cultural achievements and contributions of Persians and Turks to Islamic civilization.

335B Survey of Middle East History Since 1800 (3)

G. Doxsee. History of Middle East since era of the French Revolution. Disintegration of the Ottoman Empire, emergence of the contemporary Middle East political system, impact of nationalism, secularism and industrialism on the region, and position of the Middle East in contemporary world affairs.

341A Africa to the 17th Century (3)

S. Miers. Africa in the ancient world; spread of agriculture and iron working; rise of Islam; migrations of peoples; development of states; arrival of the Europeans.

341B Africa from the 17th to the late 19th Century (3)

S. Miers. Africa in the 17th century; slave trade; religious revolutions in the western Sudan; development of African states; commercial revolution of the 19th century; birth of a plural society in South Africa; European partition of Africa.

341C Africa from the Late 19th Century to the Present Day (3)

S. Miers. Establishment of European rule in Africa; colonial period; rise of nationalism; decolonization and independence; problems of modern Africa.

345A Southeast Asia to 1820 (3)

J. Cady, N. Parmer. Southeast Asian peoples, economic life, institutions and cultures, including borrowings from India and China; origins, classical period, European commercial impact down to post-Napoleonic period.

345B Southeast Asia: 1820 to 1945 (3)

J. Cady, N. Parmer. Southeast Asia in the early 19th century, British-Indian commercial hegemony, development of imperialist rivalry, patterns of investment colonialism, its effects on Southeast Asian peoples, emergence of nationalist protests between world wars, Japanese conquest and occupation.

345C Post-War Southeast Asia: Independence Problems (3)

J. Cady, N. Parmer. Situation at the end of the war, achievement of independence, economic development and government problems, revolutions in Indochina, drift toward military rule in Thailand, Burma, South Vietnam, Indonesia, world orientation and America's role, regional prospects.

346A Traditional China to 1800 (3)

D. Jordan. Growth and interaction of principal political, social and economic institutions of China from prehistoric times through decline of Imperial system in the 1800s. Replaces 446A.

346B Modern China (3)

D. Jordan. Weakness of the Empire in the 1880s confronted by dynamic western economic and political imperialism; response to pressures of nationalism from without and from within; great flux in modern Chinese society and politics. Replaces 446B.

348A Traditional Japan (3)

D. Jordan. Development of Japan's early civilization, including indigenous elements and those derived from Korea and China. Political development of Japan leading to its position vis-a-vis the western nations in the 19th century. Replaces 448A.

348B Modern Japan (3)

D. Jordan. Political weakness of Tokugawa system leading to opening of Japan to western trade and restoration of the emperor; favorable economic and political base which allowed Japan to enter successfully into competitions with European nations; Japan's ultranational era and postwar reconstruction. Replaces 448B.

353A The Early Middle Ages (3)

C. Reeves. Birth of the Middle Ages, 300-1100: collapse of ancient civilization, triumph of Christianity, coming of dark ages and revival of Europe in 11th century.

353B The Later Middle Ages (3)

C. Reeves. Maturity and decadence of medieval world, 1100-1450: revival of trade, royal governments, Papal power, schools and learning in 12th and 13th centuries and collapse of this civilization in 14th and 15th centuries.

391A English History to 1688 (4)

R. Rauschenberg. For English and government majors as well as pre-law students and general students of history. Stresses institutional aspects of medieval England and social, political and constitutional developments in the Tudor and Stuart periods.

391B English History Since 1688 (4)

R. Rauschenberg. For English and government majors as well as pre-law students and general students of history. Emphasizes cultural and economic developments, growth of the British Empire, constitutional and social reforms and the impact of WW I and WW II.

400A Colonial America to 1689 (3)

Prereq: 211 or perm. *B. Steiner*. English background, establishment of settlements, first economics, evolution of political and religious structures, relations with England, internal conflicts, Glorious Revolution.

400B Colonial America, 1689-1763 (3)

Prereq: 211 or perm. *B. Steiner*. Governmental changes, credit and currency, Great Awakening, cultural developments, old colonial system, Anglo-French rivalry, nature of colonial society, problems of maturing political units.

400C Revolutionary Era, 1763-1783 (3)

Prereq: 9 hrs incl 211. *H. Stevens*. Causes of American Revolution and the struggle for independence.

401A Studies in Colonial American History (4)

Prereq: 24 hrs and perm. *B. Steiner*. Literature and source materials of colonial American history. Readings and reports.

401B Studies of the Era of the American Revolution (4)

Prereq: 24 hrs and perm. *H. Stevens*. Literature and source materials of American Revolution. Readings and reports.

404A Founding the American Republic: 1783-1800 (3)

Prereq: 9 hrs incl 211. *K. Keller*. Confederation, movement for new government, framing of Constitution and establishment of government during Washington's and Adams' terms.

404B Founding the American Republic: 1800-1819 (3)

Prereq: 9 hrs incl 211. *K. Keller*. Shaping of America's political, social and economic institutions, constitutional development and foreign policy under exponents of Jeffersonian democracy and rise of nationalistic spirit during War of 1812 and after.

404C The Old South (3)

Prereq: 9 hrs incl 211. Origins and growth of distinctive social, cultural and ideological patterns in the South with emphasis on 19th century prior to Civil War.

405 Studies in the Foundation of the American Republic, 1783-1819 (4)

Prereq: 24 hrs and perm. *K. Keller*. Literature and source materials of early national period of American history. Readings and reports.

406A Sectional Controversy: 1820-1836 (3)

Prereq: 211. *H. Stevens*. Conflicts of aristocratic and democratic elements in society and governments; problems of sectionalism, slavery, racism (black, Indian) minorities.

406B Sectional Controversy: 1836-1850 (3)

Prereq: 211 or 212. *H. Stevens*. Sectional tensions evolving from political controversy, economic conditions, slavery, territorial expansion and attempts to compose differences from 1836 to 1850.

407 Studies of the Era of Sectional Controversy, 1819-1850 (4)

Prereq: 24 hrs and perm. *H. Stevens*. Literature and source materials of the era of sectional controversy, 1819-1850. Readings and reports.

408A Foundations of Modern America: The Civil War Era, 1850-1865 (3)

Prereq: 9 hrs incl 212. *R. Doolen*. Intensive examination of period from 1850 to conclusion of Civil War in 1865, with special reference to those forces making for increased sectionalism in 1850s; rise of new political movements and leaders; military engagements; society and institutions in both the North and the Confederacy during wartime.

408B Foundations of Modern America: Reconstruction and the New South after 1865 (3)

Prereq: 9 hrs, incl 212. *R. Doolen*. United States in yrs following Civil War; administrations of Andrew Johnson and Ulysses S. Grant, with special reference to reconstruction policies for the South and restoration of home rule in that region. Carries account of southern regional development to end of 19th century.

408C Foundations of Modern America: The Gilded Age, 1877-1901 (3)

Prereq: 9 hrs incl 212. *R. Doolen*. United States in late 19th century, with emphasis on roles of agrarian, labor and reform movements in an increasing industrial and urban society. Special note taken of role of political parties in Gilded Age.

409 Studies in the Era of the Foundations of Modern America, 1850-1901 (4)

Prereq: 24 hrs and perm. *R. Doolen*. Literature and source materials for period 1850-1901 in United States history. Readings and reports.

410A The United States in Recent Times, 1900-1920 (3)

Prereq: 9 hrs incl 213. *A. Hamby, G. Lobdell*. Progressive era, American imperialism, WW I, rejection of Wilsonian liberalism.

410B The United States in Recent Times, 1920-1939 (3)

Prereq: 9 hrs incl 213. *A. Hamby, G. Lobdell.* Temper and culture of the 20s, Republican ascendancy and Democratic revival, Great Depression, F. D. Roosevelt and New Deal.

410C The United States in Recent Times, Since 1939 (3)

Prereq: 9 hrs incl 213. *A. Hamby, G. Lobdell.* Abandonment of isolation, WW II, American politics in later Roosevelt years, cold war, Truman and Fair Deal, politics and problems of the 50s and 60s.

411 Studies in the History of the United States in Recent Times (4)

Prereq: 24 hrs and perm. *A. Hamby, G. Lobdell.* Literature and source materials of recent United States history. Readings and reports.

412 History of the Industrial Revolution in the United States, 1850-1917 (3)

Prereq: 212-213. *R. Daniel.* Origins of factory system, impact of Civil War, rise of heavy industry, problems of financing and control, influence of progressive era.

414A Social and Cultural History of the United States, 1607-1820 (3)

Prereq: 211. *R. Daniel.* Role of minorities, class structure and religion in forming American society; development of American painting, architecture, music, literature, education and science as expressions of Puritanism, enlightenment and nationalism.

414B Social and Cultural History of the United States, 1820-1890 (3)

Prereq: 212. *R. Daniel.* Role of minorities, class structure and religion in forming American society; development of American painting, architecture, music, literature, education and science as expressions of romanticism, Social Darwinism and pragmatism.

414C Social and Cultural History of the United States, 1890 to Date (3)

Prereq: 213. *R. Daniel.* Role of minorities, class structure and religion in forming American society; development of American painting, architecture, music, literature, education and science as expressions of pragmatism and existentialism.

414D History of American Thought to 1815 (3)

C. Alexander. Major aspects of intellectual history of American colonies and the United States to 1815, organized around 2 major themes: Puritanism and secularization of

American thought in the 18th century; also noting principal developments in American culture in colonial and early national periods.

414E History of American Thought, 1815-1890 (3)

C. Alexander. Major aspects of intellectual history of the United States, 1815-1890, stressing rise of romantic nationalism in social, political and cultural thought; triumph of democratic attitude; slavery controversy; impact of the Civil War and Darwinian evolution on American thought.

414F History of American Thought, 1890 to the Present (3)

C. Alexander. Major aspects of history of the United States since 1890, with principal attention given to continuing impact of evolutionary naturalism, especially in development of pragmatism; trends in liberal and conservative political ideologies; rise of pessimistic theology and its ramifications; development of modernistic attitude in the arts; role of science in social thought; variegated character of recent American thought.

415 Studies in the Social and Cultural History of the United States (4)

Prereq: 24 hrs and perm. *R. Daniel.* Literature and source materials of social and cultural history of United States. Readings and reports.

416A History of United States Foreign Relations to 1898 (3)

Prereq: 9 hrs incl 212. *J. Gaddis.* United States foreign relations from war for independence to Spanish-American War, stressing development of traditional policies— isolationism, neutrality, Monroe Doctrine—and emergence of an American approach to foreign policy.

416B History of United States Foreign Relations, 1898-1939 (3)

Prereq: 9 hrs incl 213. *J. Gaddis.* American foreign relations from war with Spain to outbreak of WW II, emphasizing attempts to adjust traditional policies and attitudes to new conditions produced by changes in world power structure and rise of United States as a great power.

416C History of United States Foreign Relations Since 1939 (3)

Prereq: 9 hrs incl 213. *J. Gaddis.* WW II and revolution in American foreign relations, cold war and containment, search for peace and security in a revolutionary era.

417 Studies in the History of American Foreign Relations (4)

Prereq: 24 hrs and perm. *J. Gaddis*. Literature and source materials of American foreign relations. Readings and reports.

418A The Westward Movement: from the Atlantic Seaboard to the Mississippi (3)

Prereq: 211. *H. Stevens*. Expansion from first settlements on Atlantic seaboard to the Mississippi. Explorations, Indian trade, land policies, slavery, pioneer life, territorial development and state making.

418B The Westward Movement: Trans-Mississippi West (3)

Prereq: 212-213. *H. Stevens*. Territorial acquisitions, trails and exploration, Indian affairs, slavery, railroads, types of later frontiers and influence of the West upon American ideals and institutions.

420 History of the Middle West (3)

Prereq: 9 hrs. *T. Smith*. Development of political, economic and social institutions and attitudes characteristic of Ohio and the Middle West since 1787. Includes 20th century community relationships, problems and forms of behavior.

422 Latin America in the 19th Century (3)

Prereq: 9 hrs. *J. Cunningham*. Causes of wars for independence; institutional adjustments during and after wars; problems of regionalism and caudillism; influence of liberalism and positivism in shaping Latin American republics.

423 Studies in Latin American History, 1750-1880 (4)

Prereq: perm. *J. Cunningham*. Literature and source material of Latin American history, 1750-1880. Readings and reports.

426A Recent Latin America: Argentina, Brazil and Mexico in the 20th Century (3)

Prereq: 9 hrs. *J. Cunningham*. Reshaping and modernization of Mexico by revolution, and struggle to convert Argentine and Brazilian regionalisms, divided societies and resources into modern urban, integrated nations.

426B Recent Latin America: Andean Nations in the 20th Century (3)

Prereq: 9 hrs. *J. Cunningham*. Varied experience of the Andean republics under onset of modernization stressed.

426C Recent Latin America: Central America and the Island Republics in the 20th Century (3)

Prereq: 9 hrs. *J. Cunningham*. Search for national identity and modernization in area of special interest to United States. Consideration of alternative national solutions with special attention to Castro revolution and its historical background.

427 Studies in Recent Latin American History (4)

Prereq: perm. *J. Cunningham*. Literature and source materials of recent Latin American history. Readings and reports.

428 Greece in the 5th Century B.C. (3)

D. Richter. Political, social and cultural institutions of Greece in 5th century B.C. with special emphasis on city of Athens.

429 Studies in the History of Ancient Greece (4-8)

Prereq: 24 hrs and perm. *D. Richter*. Literature and source material of ancient Greek civilization. Readings and research paper. Themes vary from qtr to qtr. May be repeated for credit.

435 Studies in Middle East History (4)

Prereq: 24 hrs and perm. *G. Doxsee*. Literature and source materials on the Middle East since 1914. Readings and reports.

436A North Africa in Modern Times (3)

Prereq: 9 hrs. *G. Doxsee*. The Maghrib: its geography, ethnic composition and history since antiquity; French conquest of Algeria, Tunisia and Morocco; administrative systems; economic development; French-Muslim relations.

436B North Africa Since 1914 (3)

Prereq: 9 hrs. *G. Doxsee*. Rise of nationalism; struggle for political independence; political, economic and social problems in independent North Africa.

438A History of East Africa (3)

Prereq: 9 hrs. *S. Miers*. History of East Africa from early times to present, with particular emphasis on period since 1750. Although neighboring countries also studied, greatest attention paid to region which comprises present day Kenya, Uganda and Tanzania.

441 Studies in African History (4)

Prereq: 24 hrs, perm, 341 or 442. *A. Booth, G. Doxsee*. Literature and source materials of African history. Readings and reports.

442A History of South Africa to 1899 (4)

A. Booth. Ancient man; Bantu migrations; coming of Europeans; conflict between Bantu, Boer and Briton; rise of Zulus and Wars of Calamity; rise of colonial tensions and origins of Boer War.

442B South Africa in Recent Times (4)

A. Booth. Boer War; Union of South Africa; rise of parties and Age of the Generals; WW I; industrial and social conflict; WW II; election of 1948 and emergence of Afrikaner nationalism.

444A History of Malaysia (3)

Prereq: two 300- or 400-level courses in social sciences or humanities dealing with Asia. *N. Parmer.* Political and cultural history of Malaysian or Indonesian peoples from 8th century A.D. through mid-20th century. Emphasizes indigenous values and institutions and how these have been modified or displaced by experience with imperialism and modernization.

444B Burma and Thailand in Modern Times (3)

Prereq: two 300- or 400-level courses in social sciences or humanities dealing with eastern Asia. *J. Cady.* Comparative study of neighboring Buddhist states, covering selected aspects of their history. Emphasizes political and cultural tradition, their interrelations, impact of colonial period and problems of post-war modernization.

444C History of Vietnam (3)

Prereq: two 300- or 400-level courses in social sciences or humanities dealing with eastern Asia. *J. Cady.* Assesses heritage of 1000 yrs of Chinese rule and covers development of Vietnamese state from 10th to 19th century, missionary and French colonial impact and problems of independence since 1945.

444D Chinese in Southeast Asia (3)

Prereq: two 300- or 400-level courses in social sciences or humanities dealing with Asia. *D. Jordan.* Historical role of this potent immigrant community in the setting of Southeast Asian countries. China's imperial interests in the area, tribute system, relationships between overseas Chinese, European colonialists and indigenous peoples and role of Chinese communities in contemporary Southeast Asian politics.

445 Studies in the History of Southeast Asia (4)

Prereq: two 300- or 400-level courses in social sciences or humanities dealing with Asia. *J. Cady, N. Parmer.* Literature of Southeast Asian history and culture generally, with

particular emphasis on selected developments in the 19th and 20th centuries. Readings and reports.

449 Studies in the History of East Asia in Modern Times (4)

Prereq: two 300- or 400-level courses in social sciences or humanities dealing with Asia. *D. Jordan.* Historical literature relating to process of modernization of China and Japan from 1860s to 1960s. Readings and reports.

452 Medieval Civilization (4)

C. Reeves. Transmission of Christianity and classical culture to the barbarians and their work of combining the 2 into a new civilization in the early Middle Ages. Medieval civilization at its height: the Church, the schools and scholastic thought and secular culture.

456A The Italian Renaissance (3)

Prereq: 101. *P. Bebb.* Renaissance in Italy from rise of Italian city-states to invasions of early 16th century.

456B The Northern Renaissance (3)

Prereq: 101. *P. Bebb.* Age of the Renaissance in northern Europe, including France, England, Spain, Germany and the Netherlands.

456C The Reformation (3)

Prereq: 101. *P. Bebb.* Protestant and Catholic reformations in Europe.

458A Early Modern Europe, 1559-1648 (3)

Prereq: 101. *D. Baxter.* Europe from 1559 to 1648. Main political, economic and cultural developments in Europe during Age of Spanish Preponderance: Philip II, wars of religion, Richelieu, Thirty Years' War and ideological struggles.

458B Early Modern Europe, 1648-1715 (3)

Prereq: 101-102. *D. Baxter.* Europe from 1648 to 1715. Main political, economic and cultural developments in Europe during Age of Louis XIV: French hegemony, rise of balance of power, absolutism, intellectual revolution and Pre-Enlightenment.

458C Early Modern Europe, 1715-1774 (3)

Prereq: 101-102. *D. Baxter.* Europe from 1715-1774. Main political, economic and cultural developments in Europe during Age of Louis XV: despotism, diplomatic revolution, competition for empire, science and learning.

461 Proseminar in French Revolution (4)

Prereq: 24 hrs and perm. *C. Gustavson.* Intensive study of such historical factors as causality, influence of ideology, institutional organization and role of individual in a great upheaval.

462A Europe, 1814-1871 (3)

Prereq: 102 and 103. *L. McGeoch*. Europe from Congress of Vienna through Franco-Prussian War, including growth of liberalism and nationalism, revolutions of 1830 and 1848, Industrial Revolution, unification of Italy and Germany, social and intellectual movements.

462B Europe, 1871-1914 (3)

Prereq: 103. *L. McGeoch*. Development of Austria-Hungary, France, Italy, Germany, Great Britain and Russia, including imperialism, background of WW I and social and intellectual movements.

463 Studies in 19th Century Europe (4)

Prereq: 24 hrs and perm. *L. McGeoch*. Literature and source material of 19th century Europe. Readings and reports.

464A Europe Between World Wars (3)

Prereq: 9 hrs incl 103. *R. Whealey*. Fascism, Communism and the Twenty-Year Armistice between 1919 and 1939.

464B Contemporary Europe (3)

Prereq: 9 hrs incl 103. *C. Gustavson*. Cold War in Europe, Communist bloc, movement toward European integration, Gaullist regime and major developments on national level.

466A Modern France in the 19th Century (3)
J. Chastain. Evolution of France as a monarchy, empire and republic.

466B Modern France in the 20th Century (3)
J. Chastain. France under 3 republics.

467 Studies in Modern France (4)

Prereq: 24 hrs and perm. *J. Chastain*. Literature and source material of modern France. Readings and reports.

468A Modern Germany in the 19th Century (3)

J. Chastain, C. Gustavson. Germany and central Europe from Age of Napoleon to fall of Bismarck.

468B Modern Germany in the 20th Century (3)

J. Chastain. Germany and central Europe since advent of Wilhelm II.

470 History of the Byzantine Empire, 324-1453 (3)

W. Kaldis. Decay of the Roman World and emergence of a Christian empire, 324-717; medieval Roman Empire, 717-1056; weakening of central administration and apparent revival under the Comneni, 1025-1204; Byzantium and the neighboring world, 1204-1453;

church and state; education and learning; Byzantine art; social, political and military developments.

472A Balkans in Early Modern Period, 1453-1804 (3)

W. Kaldis. Ethnographic structure of Balkan peoples under rule of Ottoman Empire. Ottoman institutions and society; political, social, economic, religious and cultural developments in the Balkans in 15th, 16th, 17th and 18th centuries.

472B Balkans in 19th Century, 1804-1878 (3)

W. Kaldis. Evolution of modern Balkan nationalism and rise of Balkan states. Ottoman dissolution and Balkan revolutionary nationalism; political, social, economic, religious and intellectual developments; domestic Balkan policy and foreign intervention.

472C Balkans in 20th Century, 1878 to Present (3)

W. Kaldis. Historical, cultural and ethnic background of Balkan peoples. Social, economic, political and intellectual developments in the Balkans; communization of southeast European states.

474A History of European Diplomacy, 1814-1914 (3)

Prereq: 102-103. *L. McGeoch*. Diplomatic history from Congress of Vienna to WW I, including age of Metternich, Italian and German unification, new imperialism and prewar alliance and alignments.

474B History of International Diplomacy, 1914-1939 (3)

Prereq: 103. *R. Whealey*. International problems of peace and war, international organization and alliances.

474C History of International Diplomacy, 1939 to Present (3)

Prereq: 103. *R. Whealey*. International problems of peace and war on a world wide scale since 1939, international organization and alliances, adjustment to collapse of European imperialism.

476A Economic History of Europe, to 1760 (3)

Prereq: 101-102. European economic development from Middle Ages to time of Adam Smith, including: medieval background, expansion of Europe, mercantilism and early growth of capitalism.

476B Economic History of Europe, 1760-1914 (3)

Prereq: 102-103. Industrial, commercial, agricultural and financial development in Europe from mechanization of industry to WW I.

History

476C Economic History of Europe Since 1914 (3)

Prereq: 103. European economic development in war and peace from 1914 to present.

478A European Social and Intellectual History to 1850 (3)

Prereq: 9 hrs incl 101 and 102. Intellectual currents of the Enlightenment and transition to the Romantic movement.

478B European Social and Intellectual History, 1850-1914 (3)

Prereq: 9 hrs incl 103. Evolution of middle class views with emphasis on liberalism, nationalism, racism and imperialism; impact of Darwinism; rise of Positivism; development of International Socialism, Neo-romanticism and revolt against Positivism.

478C European Social and Intellectual History, Since 1914 (3)

Prereq: 9 hrs incl 103. Crisis in liberalism and impact of Bolshevik Revolution; discoveries in realm of the subconscious; ideas of international communism, national socialism and fascism; existential crisis.

479 The Development of Modern Science (4)

Prereq: 9 hrs biological science or history. Survey of development of science from the Renaissance. History of physical and natural sciences in ages of Copernicus, Newton, Linnaeus and Darwin.

482A History of Russia (3)

Prereq: 9 hrs, *C. Gustavson*. Russia from earliest times to 1881. Kievan Russia, Muscovy, emergence of tsarist Russia, territorial expansion and role as a great power in Europe and Asia.

482B The Communist Revolution (3)

Prereq: 9 hrs incl 103, *C. Gustavson*. From tsarist Russia to Soviet Union, 1881-1924; background for the revolution, Bolshevik seizure of power and consolidation of dictatorship.

482C Soviet Union (3)

Prereq: 9 hrs incl 103, *C. Gustavson*. Soviet Union since death of Lenin (1924) with emphasis on internal affairs of Communist regime.

483 Studies in Russian and Soviet History (4)

Prereq: 24 hrs and perm. *C. Gustavson*. Literature and source material of Russian and Soviet history. Readings and reports.

489 Later Medieval England, 1307-1485 (3)

Prereq: 9 hrs or 391A, *C. Reeves*. Investigation of political, social, intellectual, ecclesiastical and economic aspects of a period of ferment and rapid change.

490A Tudor England (3)

Prereq: 9 hrs incl 101 or 391A, *R. Harvey*. England in the 16th century: Tudor absolutism, English Reformation and major cultural and economic developments of Shakespeare's England.

490B Stuart England (3)

Prereq: 9 hrs incl 101 or 391A, *R. Harvey*. England in 17th century: constitutional crisis of Stuart period, Republican experiment under Cromwell and major cultural and economic developments.

491 Studies in Early Modern English History (4)

Prereq: 24 hrs plus perm. *R. Harvey*. Studies in early modern English history from multidisciplinary perspectives.

492A The United Kingdom in the 18th Century (3)

Prereq: 102 or 319B, *R. Rauschenberg*. Intensive study of political, social, intellectual, cultural and economic developments of England in years prior to and during American and French revolutions.

492B The United Kingdom in the 19th Century (3)

Prereq: 102 or 103 or 391B, *R. Rauschenberg*, *D. Richter*. Intensive study of Britain's history in the 19th century including examination of major political, cultural and economic trends.

492C The United Kingdom in the 20th Century (3)

Prereq: 103 or 391B, *R. Rauschenberg*. Intensive study of British history in 20th century concentrating on political, cultural and economic developments.

493 Studies in British History Since 1714 (4)

Prereq: 24 hrs and perm. *R. Rauschenberg*. Literature and source material of British history since 1714. Readings and reports.

494A The Medieval English Constitution (4)

Prereq: perm. *C. Reeves*. English government from Anglo-Saxon times to end of Middle Ages. Growth of machinery of monarchy, central administration, courts and common law. Rise of Parliament.

494B The Modern English Constitution (4)

Prereq: perm. *R. Harvey*. Emergence of modern English constitution during 16th and 17th centuries: creation and growth of Tudor Constitution; significance of English Reformation for constitution; Tudor Parliament; "Century of Revolution" (1603-1689) and crisis of Constitution; problems of sovereignty and obligation; constitution today.

**496A The British Empire-Commonwealth:
Georgian Era (3)**

Comparative study of political and economic development of Commonwealth countries from 18th century to Age of Reform.

**496B The British Empire-Commonwealth:
Victorian Era (3)**

Comparative study of political and economic development of Commonwealth countries from Age of Reform to WW I.

**496C The British Empire-Commonwealth:
the 20th Century (3)**

Comparative study of political and economic development of Commonwealth countries since WW I.

498 Problems in History (1-5, max 9)

Prereq: 24 hrs, perm. Intensive individual work either in research or individual systematic reading along lines of student's special interest and under supervision of staff member.

**499 Honors Studies of Selected Historical
Topics (1-5, max 15)**

Prereq: perm. Study, reading, research and writing on a selected topic for honors work in history.

319 Home Nursing and Family Health (2)
Simple procedures in care of the sick and minor accidents in the home. Disease prevention and health promotion for family.

399A Field Work in Home Economics (2-5)

Prereq: 18 hrs, sr rank. (summer) On-the-job training through cooperation with business organizations, department stores, hospitals, radio-television stations, Home Economics Extension Department of Ohio State University and the Merrill-Palmer Institute. Each section may be taken only once. 399A—home economics extension.

399B Field Work in Home Economics (2-5)

Prereq: 18 hrs, sr rank. (summer) Part of series beginning with 399A. See 399A for general description. 399B—home service work with public utilities.

399C Field Work in Home Economics (2-5)

Prereq: 18 hrs, sr rank. (summer) Part of series beginning with 399A. See 399A for general description. 399C—food service management.

399D Field Work in Home Economics (2-5)

Prereq: 18 hrs, sr rank. (summer) Part of series beginning with 399A. See 399A for general description. 399D—retail merchandising.

399E Field Work in Home Economics (2-5)

Prereq: 18 hrs, sr rank. (summer) Part of series beginning with 399A. See 399A for general description. 399E—radio-television.

399F Field Work in Home Economics (2-5)

Prereq: 18 hrs, sr rank. (summer) Part of series beginning with 399A. See 399A for general description. 399F—child and family development.

479A Workshop in Home Economics (2-6)

Prereq: teaching experience or perm. (summer) Special workshops for in-service training of home economics teachers. Each section may be taken only once. 479A—home economics education.

479B Workshop in Home Economics (2-6)

Prereq: teaching experience or perm. (summer) Continuation of series beginning with 479A. See 479A for general description. 479B—clothing and textiles.

479C Workshop in Home Economics (2-6)

Prereq: teaching experience or perm. (summer) Continuation of series beginning with 479A. See 479A for general description. 479C—foods and nutrition.

HOME ECONOMICS

General Home Economics

Child Development and
Family Life Education

Foods and Nutrition

Home Economics Education

Home Economics Programs
For International Students

Housing, Furnishings
And Management

Textiles and Clothing

General Home Economics

101 Orientation in Home Economics (2)

S. Slater. Home economics with emphasis on career opportunities in various areas. Specialists in each field assist staff.

Home Economics

479D Workshop in Home Economics (2-6)

Prereq: teaching experience or perm. (summer) Continuation of series beginning with 479A. See 479A for general description. 479D—child development.

479E Workshop in Home Economics (2-6)

Prereq: teaching experience or perm. (summer) Continuation of series beginning with 479A. See 479A for general description. 479E—consumer economics.

479F Workshop in Home Economics (2-6)

Prereq: teaching experience or perm. (summer) Continuation of series beginning with 479A. See 479A for general description. 479F—home furnishings.

479G Workshop in Home Economics (2-6)

Prereq: teaching experience or perm. (summer) Continuation of series beginning with 479A. See 479A for general description. 479G—home management.

479H Workshop in Home Economics (2-6)

Prereq: teaching experience or perm. (summer) Continuation of series beginning with 479A. See 479A for general description. 479H—household equipment.

479I Workshop in Home Economics (2-6)

Prereq: teaching experience or perm. (summer) Continuation of series beginning with 479A. See 479A for general description. 479I—school lunch management.

479J Workshop in Home Economics (2-6)

Prereq: teaching experience or perm. (summer) Continuation of series beginning with 479A. See 479A for general description. 479J—family life education.

491A Seminar in Home Economics (2-4)

Prereq: perm by dept chairman. Recent developments in any of the following areas. Each section may be taken only once. 491A—child development and family life.

491B Seminar in Home Economics (2-4)

Prereq: perm of dept chairman. Continuation of series beginning with 491A. See 491A for general description. 491B—foods and nutrition.

491C Seminar in Home Economics (2-4)

Prereq: perm of dept chairman. Continuation of series beginning with 491A. See 491A for general description. 491C—home economics education.

491D Seminar in Home Economics (2-4)

Prereq: perm of dept chairman. Continuation of series beginning with 491A. See 491A for general description. 491D—housing and management.

491E Seminar in Home Economics (2-4)

Prereq: perm of dept chairman. Continuation of series beginning with 491A. See 491A for general description. 491E—textiles and clothing.

491F Seminar in Home Economics (2-4)

Prereq: perm of dept chairman. Continuation of series beginning with 491A. See 491A for general description. 491F—research.

Child Development and Family Life Education

160 Introduction to Child Development (4)

L. Nudd, A. Lockard. Fundamental patterns of development and behavior during prenatal period through adolescence. Directed observations of children in nursery school setting by closed circuit television, infants in infant lab and youth in selected adult-child community activities. 4 lec, 1 lab.

270 Family Living (3)

E. Stricklin. Person-centered analysis of basic human relationship processes leading to a successful modern American marriage and family experience. Special discussion and analysis of problems in the beginning family stage. Not open to fr. 3 lec.

360 Human Sexuality (3)

E. Stricklin. Exploration of effect of one's own human sexuality on aspects of one's ability to form relationships which are integrative, creative and recreative. Emphasis is placed on realization of one's own dynamic potential in wholeness of his life pattern and in his relationships, in the light of scientific research.

361 Principles of Preschool Guidance (4)

Prereq: 160 or equiv, perm. *J. Nehls.* Application of theories and principles of preschool guidance by directed observation of adult-child interactions, and supervised participation in nursery school. 2 lec, 3 lab.

363 Creative Experiences with Preschool Children (4)

Prereq: 361, perm. (fall, winter) *A. Lockhard, J. Nehls.* Evaluation of materials and activities for use in directing and stimulating

creativity in children by means of supervised observation and planned experience in nursery school and/or other preschool settings. 3 lec, 3 lab.

371 Family Development (3)

Prereq: 5 hrs general psychology. *E. Stricklin*. Modern family and its relationships beginning at marriage and continuing through subsequent phases of family life cycle. 3 lec.

462 Readings in Child Development and/or Family Living (3-6, max 6)

Prereq: 160 or equiv, 15 hrs sociology and/or psychology. Basic research, theory writings, current controversies and trends relevant to growth and behavior of children and in family living. Experience in abstracting materials from current sources. 2-4 lec.

463 Preschool Administration (5)

Prereq: 363. (spring) *J. Nehls*. History, philosophy and objectives of preschool education including current trends. Problems in organizing and administering preschools, play groups and Head Start programs with emphasis on housing, staff, schedules and financing. Field trips to selected programs. 4 lec.

464 Nursery School Practicum (6)

Prereq: 363, perm. *J. Nehls*. Lab experience in planning, guiding, supervising and evaluating preschool children's growth and behavior in all phases of a nursery school program. 1 lec, 20 lab.

470 Family Living (3)

E. Stricklin. Person-centered analysis of basic human relationship processes leading to successful modern American marriage and family experience. Special discussion and analysis of problems in the beginning family stage. No credit for those who have had 270. 3 lec.

471 Family Life Education (4)

Prereq: perm. (winter, summer) *E. Stricklin*. History, philosophy and objectives of family life education, including current trends. Selected fundamental educational problems explored. Examination of various dimensions of teacher's role and critical appraisal of student's professional competency to teach classes in family life education.

128 Introduction to Nutrition (3)

B. Sullivan, A. Wade. Relation of foods and nutrition to growth, development and maintenance of health. Development of good food habits for children and adults.

320 Meal Management (3)

Prereq: 122, 128. *M. Lewis, A. Wade*. Principles of food preparation and nutrition emphasizing use of time, energy and resources in management of meals. 2 lec, 3 lab.

321 Creative Cookery and Food Styling (3)

Prereq: 320, 3 hrs of psychology and 3 hrs of art. (fall) *M. Lewis*. Intensive study of elements of color, design, flavor and texture of food products and styles of cookery. 2 lec, 2 lab.

422 Experimental Foods (4)

Prereq: 122 or equiv and organic chemistry. (winter) *M. Lewis*. Factors which affect results obtained from food processes. Experimental work under controlled conditions. 2 lec, 3 lab.

423 Comparative Studies in Foods (4)

Prereq: 320, bacteriology and economics. (winter, spring) *M. Lewis*. Food preservation, factors affecting palatability and nutritive value of foods, taste panels, preference surveys, elements of the food industry. 2 lec, 3 lab.

425 Teaching of Foods and Nutrition (3)

Prereq: sr rank and perm. (fall) *M. Lewis*. Organization of materials and methods of presenting principles of food preparation and nutrition. For majors in foods and nutrition. 1 lec, 4 lab.

426 Cultural and Nutritional Aspects of Food (3)

Prereq: 122, 128. (fall, spring) *A. Wade*. Food patterns and practices of various cultural groups. Evaluation of these patterns in meeting dietary needs and factors contributing to these patterns.

427 Studies in Foods and Nutrition (3-4, max 8)

Prereq: perm. Directed studies in some aspect of foods and/or nutrition; topics selected by students with approval of staff member, frequent conferences.

428 Advanced Nutrition (4)

Prereq: 122, 128, organic chemistry and physiology. (fall) *B. Sullivan*. Nutrition and evaluation of current research as applied to dietary practices for all age groups. Computation of nutritive values of dietaries. 2 lec, 4 lab.

Foods and Nutrition

122 Food Science and Principles (4)

M. Lewis, A. Wade. Scientific principles applied to selection, storage and preparation of foods. 3 lec, 2 lab.

429 Community Nutrition (3)

Prereq: 128, psychology and sociology. (spring) *B. Sullivan*. Nutrition needs and practices in agencies serving community such as social welfare, home economics extension, public health and school lunch. Nutrition work with low-income families. Involves some field work. 2 lec, 2 lab.

430 Diet Therapy (4)

Prereq: 428, biochemistry. (winter) *B. Sullivan*. Principles of nutrition in feeding of individuals and use of diet in prevention and treatment of disease. Problems in planning and preparing therapeutic diets. 3 lec, 1 lab.

431 Studies of Science of Nutrition (3-4, max 8)

Prereq: 428 and Zool 363. Nutrition as related to physiological and metabolic processes. Review and critical analysis of research in the field. 2 lec, 3 lab.

432 Infant and Child Nutrition (3)

Prereq: 128, 160 or equiv. (fall) Dietary factors related to nutritional status in pregnancy, infancy, preschool and school-age children. Contribution of nutrition education and school lunch program in school curriculum. 2 lec, 2 lab.

434 Food Production and Service (4)

Prereq: 122, 128. (fall, winter) *R. Macauley*. Food preparation principles of quantity food production and service. Experience in residence halls. 2 lec, 4 lab.

435 Purchasing and Cost Control (4)

Prereq: 434, Acct 101, perm. (spring) *R. Macauley*. Production, distribution and storage of food supplies to serve as basis for purchase of such commodities for quantity use including cost control systems. 2 lec, 4 lab.

436 Equipment Maintenance and Layout (4)

Prereq: 434. (fall) *R. Macauley*. Food service layout and selection of equipment and furnishings, including materials, construction installation, operation, care and relative cost. 3 lec, 2 lab.

437 Organization and Management (3)

Prereq: 434. (winter) *R. Macauley*. Organization and administration of food service operations in public and private institutions. Administration of labor and standards of work. 3 lec.

438 Advanced Food Production Management (2-4)

Prereq: 437 or equiv, sr rank, perm. (spring) *R. Macauley*. Individual studies and labora-

tory experiences in management of personnel and cost control procedures. Course may be taken only once.

Home Economics Education

340 Teaching of Home Economics (3)

Prereq: jr rank. *S. Slater*. Home economics programs at jr and sr high school level. Special emphasis given to vocational education, curriculum development and evaluation procedures.

341 Demonstration Techniques (3)

Prereq: 18 hrs. *M. Lewis*. Practical experience in demonstration of foods, equipment or clothing. Planned for those in secondary education or consumer service. 1 lec, 4 lab.

440 Seminar in Home Economics Education (3)

Prereq: 24 hrs of home economics and 9 hrs of education. *B. Sellers, S. Slater*. Emphasis given to classroom management, professional responsibilities and specific techniques used for teaching job-training programs.

441 Methods in Home Economics Extension (3)

Prereq: 24 hrs of home economics and 9 hrs of education. (summer) *E. Langford*. History and philosophy of home economics extension; principles and procedures of instruction; organization and evaluation of programs.

442 Home Economics Education Practicum (2-4, max 8)

Prereq: sr rank. *S. Slater*. Concentrated study in an area of interest such as adult programs, special education programs, job training experience; work with handicapped people.

443 Vocational Home Economics (4)

Prereq: 340 or teaching experience in home economics. (summer) *B. Sellers, S. Slater*. History and philosophy of vocational homemaking education. Contemporary trends, methods, sources of materials and evaluation. Observation arranged.

444 Home Economics in Adult Education (4)

Prereq: 26 hrs. (winter, summer) *B. Sellers*. Organization procedures, curriculum materials and methods of conducting adult education groups in field of education for family living.

445 Current Developments in Home Economics Education (4)

Prereq: 340 or 443. (summer) *B. Sellers*. Current trends and developments in home economics education programs at secondary and post high school levels in relation to curricular developments, evaluation procedures, legislation affecting program and research.

450 Problems in Teaching Home Economics (2-4, max 6)

Prereq: 26 hrs and EdPl 463, 464. *B. Sellers, S. Slater*. Individual problems in teaching.

Home Economics Programs for International Students

459A Home Economics Seminar, Workshop and Short Course in International Service (2-4)

Prereq: jr rank, perm. Special seminars or workshops for international students or for home economics majors who want to prepare for international service. Lec, lab and field trips. Each section may be taken only once. 459A—world food supply and human nutrition.

459B Home Economics Seminar, Workshop or Short Course in International Service (2-4)

Prereq: jr rank, perm. Continuation of series beginning with 459A. See 459A for general description. 459B—sanitation and health problems.

459C Home Economics Seminar, Workshop or Short Course in International Service (2-4)

Prereq: jr rank, perm. Continuation of series beginning with 459A. See 459A for general description. 459C—cultural, religious and social influences on family life.

459D Home Economics Seminar, Workshop or Short Course in International Service (2-4)

Prereq: jr rank, perm. Continuation of series beginning with 459A. See 459A for general description. 459D—cultural, religious and social influences on food patterns and nutrition.

459E Home Economics Seminar, Workshop or Short Course in International Service (2-4)

Prereq: jr rank, perm. Continuation of series beginning with 459A. See 459A for general description. 459E—working with low-income and disadvantaged families.

459F Home Economics Seminar, Workshop or Short Course in International Service (2-4)

Prereq: jr rank, perm. Continuation of series beginning with 459A. See 459A for general description. 459F—home and community development, including home management.

459G Home Economics Seminar, Workshop or Short Course in International Service (2-4)

Prereq: jr rank, perm. Continuation of series beginning with 459A. See 459A for general description. 459G—infant and child care services.

459H Home Economics Seminar, Workshop or Short Course in International Service (2-4)

Prereq: jr rank, perm. Continuation of series beginning with 459A. See 459A for general description. 459H—establishing home economics extension and other adult programs in developing countries.

459I Home Economics Seminar, Workshop or Short Course in International Service (2-4)

Prereq: jr rank, perm. Continuation of series beginning with 459A. See 459A for general description. 459I—curriculum studies and evaluation of international home economics programs at the elementary and secondary level.

459J Home Economics Seminar, Workshop or Short Course in International Service (2-4)

Prereq: jr rank, perm. Continuation of series beginning with 459A. See 459A for general description. 459J—curriculum studies and evaluation of international home economics programs and research in higher education.

Housing, Furnishings and Management

180 Furnishing Today's Home (3)

E. Langford, J. Matthews. Practical and esthetic study of home furnishings, including basic art qualities, studies in color and design, materials used in furnishings, selection and arrangement of furniture and accessories.

384 Family Housing (3)

Prereq: 180 and art or design. (fall, winter) *E. Langford*. Housing needs of family and factors influencing housing. Evaluation and designing of floor plans for effective use of space in home.

385 Home Furnishings Workshop (4)

Prereq: 112, 180 or 6 hrs art, perm. *E. Langford*. Lab problems in advanced techniques in home furnishings, including upholstering, slip-covering, refinishing furniture.

390 Family Consumer Economics (3)

R. Macauley. Management of personal and family financial problems. Retailing activities as they affect role of consumer. 3 lec.

391 Household Equipment (4)

Prereq: 122, 390. (fall, spring) *R. Macauley*. Selection and use of household equipment including materials, construction, operation and care. 4 lec, 2 lab.

395 Home Management (3)

Prereq: 9 hrs psychology, sociology and/or economics, jr rank. *M. Rogers*. Decision-making applied to use of family resources with purpose of creating a family environment in which optimum human development will occur. 3 lec.

396 Home Management Laboratory (4)

Prereq: 395 or with 395, perm. *M. Rogers*. Principles of decision-making and management in a group living situation. Home Management House experience provided.

439 Studies in Household Equipment and/or Management (2-4, max 6)

Prereq: 391, 395. Provides opportunity for student to pursue study in a selected area of home management and/or household equipment, under supervision.

480 Advanced Home Furnishings (3)

Prereq: 180 and art or design, perm. (winter) *E. Langford*. Qualities and styles of furniture and furnishings. Emphasis on periods of the past and their esthetic influence on the present. Practical projects in decorating and furnishing a home.

481 Contemporary Design in Furnishings (3)

Prereq: 480, 6 hrs of art or perm. (spring) *E. Langford*. Furnishings and interiors of present era; factors that have influenced development of contemporary design; important designers and their work.

482 Design in Home Accessories (3)

Prereq: 480, 6 hrs of art or perm. (spring) *J. Matthews*. Esthetic development of design in accessories of glass, ceramics, textiles, Oriental rugs, metals such as silver and pewter. Use of accessories in home and in displays.

492 Household Equipment Techniques (3)

Prereq: 391. *R. Macauley*. Critical analysis of home equipment relative to durability and effective use. 1 lec, 4 lab.

Textiles and Clothing

110 Theory of Clothing Construction (2)

E. Goldsberry. Scientific principles as applied to understanding and use of commercial pattern, to pattern alterations and to cutting and layout problems. 2 lec, labs as assigned.

112 Principles of Clothing Construction (3)

Prereq: 110. *M. Graham*. Fundamental principles of clothing construction to individual projects. Emphasis on scientific thought, creative expression and construction techniques. 1 lec, 5 lab.

308 Advanced Clothing Construction (4)

Prereq: 112, 315. *E. Goldsberry, N. Karhoff*. Advanced problems and techniques of clothing construction. Creative expression through selection of individual projects. 2 lec, 4 lab.

312 Studies in Clothing and Textiles (2-4, max 8)

Prereq: perm. Selected topic in clothing and textiles.

314 Fashion Merchandising (4)

Prereq: 112, 315, Jour 250. (fall) *E. Goldsberry*. Factors which influence merchandising of fashion goods. Process involved in planning, promoting, controlling, buying and selling fashion merchandise. 4 lec.

315 Elementary Textiles (4)

M. Dorse, M. Graham. Emphasis on textile yarns, fabrics and finishes with reference to production, processing use and care. 4 lec, 1 lab.

317 Textiles and Dress in Modern Living (3)

Prereq: Psy 101 or Soc 101. *N. Karhoff*. Contemporary uses and roles of textiles and clothing as affected by economics, social and psychological forces seen in historic perspective.

402 Flat Pattern (4)

Prereq: 112 and 315. *E. Goldsberry*. Flat pattern designing with emphasis on fitting techniques and use and understanding of commercial patterns. 2 lec, 4 lab.

405 History of Costume and Textiles (3)

Prereq: 112 and 315. (fall) *M. Dorse, M. Graham*. Costume and textiles through the ages as reflection of historical period and source for present day design.

407 Textile and Fashion Industry (5)

Prereq: 315 and Jour 250. (spring) *M. Doxsee*. Economic factors influencing textile and fashion industry treated in depth. 5 lec.

419 Advanced Textiles (5)

Prereq: 315, Chem 121, perm. (winter) *M. Doxsee*. Standard textile testing procedures and research methods. Student conducts individual research problem in lab.

INDONESIAN

See Foreign Languages and Literatures

INDUSTRIAL DESIGN

See Design, Industrial

INDUSTRIAL TECHNOLOGY

The requirements for an industrial arts major in the program leading to a BS in education degree are outlined in the College of Education section of the catalog. The program outline for a BS in industrial technology degree is described in the College of Engineering and Technology section. A teaching option is available under industrial technology.

80 Driver Education (2)

For novice drivers. Credit and points not counted toward degree. 2 lec, 2 lab. Fee: \$15.

109 Crafts (2)

Working with leather, art metal, enameling and plastics. Open to any student in the University. 4 lab.

115 Metal Fabrication (4)

Production practice, including cutting, forming and joining of metals. 1 lec, 6 lab.

117 Engineering Metals (3)

Prereq: engineering major. Practice directed toward learning capability of various metal cutting, forming and joining machines. 1 lec, 4 lab.

216 Metal Machining (4)

Prereq: EG 101. Operation of cutting, grinding and electrical discharge machines, with emphasis on factors affecting quality control during production. 1 lec, 6 lab.

220 Small Engines (3)

Assembly, adjustment and gauging procedures, as applied to small 2-cycle and 4-cycle gasoline engines. 1 lec, 4 lab.

244 Graphic Processes (3)

Prereq: EG 102. Production methods applied to letterpress, offset and screen process printing. 1 lec, 4 lab.

250 Wood Industry (5)

Prereq: EG 101. Woodworking procedures and technology, including machine operation. 2 lec, 6 lab.

260 Line Supervision (3)

Prereq: 115. Working relationships between personnel involved in production areas of manufacturing considered, including qualifications and characteristics expected for various positions. Case studies provide examples of typical positions and responsibilities available to graduates in industrial technology. 3 lec.

270 Report Writing (3)

Practice toward illustration of reporting style and format within subsequent departmental classes. 3 lec.

301 Ceramic Production (3)

Prereq: Chem 121. Ceramic materials, with emphasis on production processes. 1 lec, 4 lab.

302 Vitreous Materials (2)

Prereq: 301. Application of industrial ceramic products to problems associated with manufacturing. 4 lab.

308 Plastics (3)

Prereq: 250, Chem 122. Applications involving typical materials and forming techniques in production of plastic objects. 1 lec, 4 lab.

310 Metal Casting (3)

Prereq: 250, Chem 122. Foundry practice extending from pattern design through production of finished casting. 1 lec, 4 lab.

311 Welding (2)

Prereq: 115, 216. Varied types of welds, using arc, shielded arc, oxy-acetylene and spot welders. Analysis of results based upon testing. 4 lab.

312 Metals Production (3)

Prereq: 216. Advanced practice of machining techniques organized to illustrate applications of quantity and quality control. 1 lec, 4 lab.

318 Numerical Control (3)

Prereq: 117 or 216. Metal machining extending from planning of work program through production of finished article. 2 lec, 2 lab.

320 Hydraulic Controls (3)

Prereq: Phys 201. Application of hydraulic principles to common industrial utilizations for power transmission and mechanism control. Emphasis on study of hardware and circuitry. 1 lec, 4 lab.

321 Pneumatic Circuits (3)

Prereq: 320. Components and circuits utilizing compressed air for power and control systems. 1 lec, 4 lab.

323 Automotive Theory (5)

Prereq: 220. Adjustments affecting performance and overhaul procedures. Dynamometer testing of performance characteristics. 2 lec, 6 lab.

332 Electronics (5)

Prereq: Phys 202. Experimental activity to develop proficiency in utilizing test instruments; learning characteristics of components commonly employed in simple circuits. 2 lec, 6 lab.

333 Semi-Conductors (3)

Prereq: 332. Experimental activity revealing performance characteristics of typical components and their functions in basic circuits. 1 lec, 4 lab.

336 Bioelectronics (3)

Prereq: Phys 202. Lab course for biological science majors. Electronic principles and circuits, equipment operation and component selection. Emphasis on measurement and instrumentation. 6 lab.

341 Process Photography (3)

Prereq: 244, Phys 203. Applications of photography, with emphasis upon standardization of quality control, from exposure through printing by photo-offset and screen process methods. 1 lec, 4 lab.

342 Color Reproduction (3)

Prereq: 341. Production of multiple-color materials, including preparation of copy, photography and printing by offset or screen process. 1 lec, 4 lab.

350 Wood Forming (3)

Prereq: 250, Chem 122. (winter) Shaping objects from wood through lamination and methods other than cutting, as illustration of processes currently employed in industry. 1 lec, 4 lab.

351 Jigs and Fixtures (3)

Prereq: 250. Planning and constructing supplemental devices aimed toward increasing production quantity and quality in wood-working industry. 1 lec, 4 lab.

361 Product Design (2)

Prereq: 244, 250. Design principles applied through development of products. 4 lab.

362 Product Manufacture (3)

Prereq: Mgt 300. Development of entire plan for manufacturing products such as those designed in 361. Plan to include sequence of operations, supply and work flow, personnel requirements, production rate and cost predictions. 6 lab.

363 Quality Control (2)

Prereq: 362. Study and application of quality control principles and practices, using products manufactured within other INDТ classes as illustrative examples. 2 lec.

380 Driver Safety (5)

Prereq: Psy 375. Current traffic conditions and regulations affecting driving as preparation to becoming instructors in driver education. Lab involves working with novice drivers. 4 lec, 2 lab.

381 Traffic Safety (3)

Prereq: 380. Organization and administration of driver education, including study of related attitudes and methods practiced in existing programs. Practice instruction included. 2 lec, 2 lab.

390 Materials (3)

Prereq: 12 hrs. Sources, manufacture and applications of common materials not given more extensive coverage within other departmental courses. 3 lec.

391 Elementary Industrial Arts (2)

Prereq: elementary education major. Planning and construction of projects designed to supplement other instruction at elementary level. 4 lab.

395 Co-op Work Study (5, max 15)

Prereq: perm. Work-study participation in established industrial training programs. Credit dependent upon advance registration and acceptance by approved companies participating in program.

396 Intern Supervision (3)

Prereq: 395 or perm. Practice supervision simulating foremanship level for students involved in production activity within other departmental courses. 1 lec, lab arranged.

413 Die Making (3)

Prereq: 312. Preparation and utilization of punching and forming dies for working metal according to commonly employed industrial processes. 1 lec, 4 lab.

421 Power Transmission (2)

Prereq: 323. Practice with common power transmission units, including study of transmission efficiency and adjustments affecting operational characteristics. 4 lab.

435 Control Circuits (3)

Prereq: 333. Combinations of basic electronic circuitry in more complex arrangements commonly employed for machine control. Emphasis upon adjustment and correction of malfunctioning controls. 1 lec, 4 lab.

436 Electronic Applications (3)

Prereq: 333 or 336. Advanced experimental work on individual problems, as approved by instructor, for extension of knowledge from previous courses. 6 lab.

443 Advanced Graphics (2, max 4)

Prereq: 244. Problem solving in graphic reproduction, as means of depth study in specific phases of this area. 4 lab.

470 Intern Teaching (3)

Prereq: Educ 351, 12 hrs. Presenting technical and related material in industrial arts classes. 2 lec, lab arranged.

483 Safety Programs (4)

Prereq: 12 hrs. Organization patterns of safety programs, and how they are applied, in manufacturing industry. 4 lec.

484 Maintenance Systems (3)

Prereq: 12 hrs. Maintenance systems currently utilized, with consideration of where and how each may be installed. 3 lec.

INTERNATIONAL STUDIES

The Center for International Studies offers a certificate in international studies as a supplement to the undergraduate major. The student may concentrate on a world region such as Asia, Africa or Latin America or on an international topic e.g. economic development, international comparative education, international marketing. The requirements are (1) six courses dealing with (a) one of the three world regions or (b) with an international topic; (2) study of a language relevant to the student's program through the intermediate level; (3) a grade point average of 2.50 in all courses taken toward the certificate. The certificate is awarded upon graduation from Ohio University. Students seeking the certificate must register with the undergraduate adviser of the Center for International Studies.

For further information about the undergraduate certificate, the Center for International Studies, Asian, African and Latin American languages and other international activities, see the Special Programs section of this catalog, page —.

An interdisciplinary undergraduate course dealing with Latin America is offered in the Honors College. See the director of Latin American studies or the dean of the Honors College for specific information.

The Center for International Studies is responsible for the following interdisciplinary courses in the University College:

103 Modern Asia (5)

Introduction to history, cultures and current problems of civilizations of Asia. Interdisciplinary survey includes lectures dealing with China, Japan, India and Southeast Asia.

113 Africa (4)

Interdisciplinary introductory survey of Africa, its history and modern development allowing student participation to achieve affective and academic goals. Disciplines included: anthropology, art, dance, economics, education, ethnomusicology, geography, government, history, linguistics and literature.

114 Africa (4)

Continuation of 113. See 113 for description.

INTERPERSONAL COMMUNICATION

101 Fundamentals of Speech (3)

Analysis of role of oral communication in society with emphasis on speaker-listener responsibilities and needs; performance directed toward development of proficiency in oral communication elements.

103 Public Speaking (4)

Principles of public speaking, practice in presenting informative, entertaining and persuasive speeches with emphasis on communicative process. Fr and soph only.

104 Listening (2)

Improvement of listening skills through intensive practice.

105 Introduction to Mass Communication (4)

Development, structure, functions, processes, control and effects of mass media. 4 lec. Same as Jour 105 and R-TV 105.

Interpersonal Communication

107 Introduction to Verbal Language Behavior (2)

Fundamental linguistic theory of verbal language production in message generation. Individual projects in listening laboratory to increase proficiency.

205 Techniques of Group Discussion (4)

Group discussion techniques and their implementation; frequent practice in discussion.

210 Parliamentary Procedure (2)

Theory and procedures by which organizations are run according to rules of order.

215 Argumentation and Debate (3)

Basic principles of argumentative discourse including concepts of presumption, burden of proof, rhetorical forms of reasoning and evidence. Practice in applying of these principles.

217A Forensic Workshop—Debate (1-6)

Prereq: perm. Intensive work in Intercollegiate Forensics Program. Students prepare for debate on contemporary issues. For credit, students must participate in 1 intercollegiate contest.

217B Forensic Workshop—Individual Events (1-6)

Prereq: perm. Intensive work in Intercollegiate Forensics Program. Students prepare for audience and contest appearances in persuasion, oral interpretation, extemporaneous and impromptu speaking. For credit, students must participate in 1 intercollegiate contest.

220 Oral Interpretation of Literature (3)

Techniques of oral interpretation and development of adequate intellectual and emotional responsiveness to meaning of literature.

334 Introduction to Communication Process (4)

Communication process in terms of its philosophical bases, its major variables and its forms and effects.

335 Bases of Speech Communication (3)

(winter, spring) Theory underlying source and message variables with emphasis upon psychological, acoustical, physiological and phonological dimensions of language in speech communication.

353A History and Criticism of Courtroom Oratory (3)

Famous cases and methods of communication of masters of courtroom and judicial oratory. Cases, trials including Cicero, Strafford, Charles I, Erskine, Hastings, Marshall, Webster, Darrow, Sacco-Vanzetti. (See also CA 303, 304, 305.)

353B History and Criticism of Political Oratory (3)

Methods of communication, rhetorical theories of masters of political oratory. Debates including Burke, Chatham, Pitt, Calhoun, Clay, Webster. Movements including nationalism, imperialism, social and political reform.

353C History and Criticism of 20th Century Oratory (3)

Methods of communication of masters of the period. Figures: Hitler, Mussolini, Lenin, Wilson, Churchill, Roosevelt, Kennedy, King. Movements: rhetoric of revolution, nationalism, fascism, socialism, communism, republicanism.

353D History and Criticism of Black Oratory (3)

Methods of communication and rhetorical theories of masters of black oratory. Figures drawn primarily from 20th century black speaking.

404 Principles and Techniques of Interviewing (3)

Prereq: perm and sr rank. Methods used in 2-party, face-to-face oral communicative situations commonly encountered in organizational and professional environments. Intensive practice through role-playing and real-life interviews in and out of class, emphasizing skills involved in giving and getting information, persuasion and job-employment situations.

405 Principles of Conference Leadership (4)

Prereq: 205 or perm. (winter, summer) Group process as it applies to problem-solving, discussion and conferences, with emphasis on leadership methods and skills.

412 Advanced Public Speaking (3)

(fall, spring) Principles of public speaking with equal emphasis on theory and on practice in various forms of public speaking.

421 Teaching Speech and Theater I (3)

Prereq: 3rd qtr jr or sr. Philosophy of speech (secondary) education; units or topics identification; exploration of methodologies (traditional and new); diagnostic devices; organization of objectives, content and learning activities.

422 Teaching Speech and Theater II (2)

Individual projects include development of course of study units in speech and theater, evaluation procedures and lesson plans.

425 Direction of Forensic Programs (3)

Study in curriculum, coaching, budgeting, judging, public relations, professionalism and tournament management. Practical application in University and high school forensic programs.

432 Creativity in Communication (4)

Creativity as it relates to communication. Implementation of creativity examined in areas of business, industry, teaching and interpersonal relations.

433 Applications of General Semantics (4)

Chief formulations from general semantics and their applications to field of communication.

435 Theories of Argument (3)

Relations between formal logic and rhetorical systems of argument; intensive study of fallacies and of experimental findings related to study of argument.

442 Communication and Persuasion (4)

Process of communication and attitude change, survey of general theories and typical research, analysis of contemporary persuasion, projects in experimental persuasion.

445 Communication in Organizations (4)

Prereq: perm and sr rank. Traditional and modern concepts of channels of communication in complex organizations (government, industry, education, etc.). Influence of organizational theory on communicative patterns and tasks.

446 Communication and the Campaign (4)

Prereq: perm and sr rank. Management theory and process of communication as applied in campaign situations (political, fund-raising, information, publicity, etc.). Students will apply theory in out-of-class campaign situations.

448 Cross-Cultural Communication (4)

Analysis of processes and problems of communication as affected by national cultures; effects of differences in language, values, meaning, perception and thought.

450 Introduction to Rhetorical Theory (3)

(spring) Ancient and modern rhetorical concepts and theories; emphasis on relationship of rhetoric to poetics, ethics, law and modern communication theory.

452 Psychology of Speech (4)

Psychological principles active in communication such as concept-reference; vocal, visual and verbal cues; attention, perception.

458 Responsibilities and Freedom of Speech in Communication (4)

Review of ethical background, social and political foundations and famous cases of freedom of speech.

460 Contemporary Public Address (4)

Analysis of selected speakers and settings since 1933 with emphasis on the last decade; close examination of agitation, confrontation and control as rhetorical strategies; rhetoric of the pulpit; black rhetoric, and rhetoric of women's liberation.

497 Internship (1-15)

Prereq: perm. Systematic, supervised practical training and experience for undergraduate students in selected professional environments.

498 Special Problems (2-4, max 12)

Prereq: written proposal, perm. May be repeated for credit.

499 Independent Readings (2-4, max 12)

Prereq: written proposal, perm. May be repeated for credit.

ITALIAN

See Foreign Languages and Literatures

JOURNALISM

The Ohio University School of Journalism is accredited by the American Council on Education for Journalism. As one of a limited number of accredited schools and departments of journalism in the United States, it is a member of the American Association of Schools and Departments of Journalism.

105 Introduction to Mass Communications (4)

All the forms of mass communication including newspapers, magazines, radio-television, book publishing, public relations, advertising and photojournalism. Begins with analysis of communication process and ends with media career opportunities. Similar to R-TV 105 and InCo 105.

221 Graphics of Communication (5)

Prereq: majors only. Creative and practical aspects of typography, layout and design of printed communication.

221A Graphics of Communication (5)

Creative and practical aspects of typography, layout and design of printed communication.

231 News Reporting (4)

Prereq: typing proficiency and passage of English Proficiency Test. Methods of gathering and evaluating news and writing typical news stories. Practice work covering assignments and preparing copy.

231A News Reporting (4)

Prereq: typing proficiency, nonmajors only. Methods of gathering and evaluating news and writing typical news stories. Practice work covering assignments and preparing copy.

231B News Reporting (4)

Prereq: major, prior reporting experience and perm. Accelerated section for journalism majors with some prior experience in reporting. Methods of gathering and evaluating news and writing typical news stories. Practice work covering assignments and preparing copy.

250 Advertising Principles (5)

Prereq: advertising and PR majors or perm. Major factors in development of advertising programs.

250A Advertising Principles (5)

Major factors in development of advertising programs.

311 History of American Journalism (5)

Prereq: major or perm. Development of newspaper, magazine and broadcast journalism from colonial period to present. Social, political, economic and mechanical aspects.

321 Newspaper Advertising and Layout (4)

Prereq: 250 and major or perm. Operation of advertising department from viewpoint of advertising manager.

323 Newspaper Advertising Practice (2)

Prereq: 321, perm. Lab work in preparing copy for local display advertisers of the *Athens Messenger*. Other experience in classified, national and promotion advertising.

325 Photojournalism (3)

Prereq: 231 or perm. Basic principles and practices of photojournalism for newspapers, magazines and television. Includes consideration of roles of photographers and picture editors in communications and their relationships with other members of the editorial team and mechanical departments of publications. Students shoot pictures on assignment. Film processing and printing handled by commercial photofinishing plant.

331 Reporting Contemporary Issues (3)

Prereq: 231, jr or sr rank. Research, reading and speech reporting on current social problems. Emphasis on intelligent understanding and ability to report in depth for mass audience.

332 Reporting Practice (2)

Prereq: 231, perm. Assignments at the *Athens Messenger* in city, sports and women's desk reporting, along with features.

332B Reporting Practice (2)

Prereq: 231 and perm, Black Studies Institute only. Assignments at the Black Studies Institute in news and feature reporting about black community.

333 News Editing (4)

Prereq: C or better in 231, passage of English Proficiency Test. Copyreading, headline writing, news selection and layout of news pages.

334 Editing Practice (2)

Prereq: 333, perm. Copyreading on the *Athens Messenger*. Handling of local correspondence, wire copy and working out make-up problems.

335 Picture Editing (3)

Prereq: 333 or perm. Principles and practices of picture editing. Includes consideration of picture sources, assignment and handling; photographic technique and esthetics; legal and ethical factors; visual idiosyncracies of various media.

351 News in Broadcasting (3)

Prereq: 231 and 333 or perm. News programming, practices and problems in broadcasting. Preparation of news reports for broadcasts.

353 Radio-TV News Practice (2)

Prereq: 351 or perm. Preparation of news for broadcast. Students serve as assistants in newsroom of University's broadcasting stations or, by special arrangement and perm, in other stations.

362 Community Newspapers (3)

Prereq: 333 or perm. Editorial and business practices of suburban weeklies and dailies.

363 Reviewing and Criticism (3)

Prereq: 231 and major or perm. Written criticism of fine and popular arts. Special role of critic who serves both as reporter and evaluator of artistic works for lay audience.

411 Newspaper and Communications Law (3)

Prereq: 333. Principles and case studies in communications law, constitutional guarantees, libel, privacy, contempt, privilege, copyright and government regulatory agencies.

412 Mass Media and Society (3)

Prereq: 333 or perm. Social responsibility of journalistic or other mass communicator. Professional codes, responsibility of media for social change, reaction to political and economic pressures.

421 Graphic Production Processes (5)

Prereq: 221 and perm. Advanced study of all processes for reproducing printed communication. Theory and lab.

422 Advertising Production (3)

Prereq: 221, 321 or perm. Techniques and problems in methods of advertising production.

430 Magazine Editing and Production (3)

Prereq: 221. Theory of magazine editing, production and publishing accompanied by lectures on various types of magazines available today and analysis of audiences they serve. Formulas for publishing, editorial content and article selection; illustration layout and technical procedures including sales and fulfillment discussed. Instructor can ask each student to prepare a dummy magazine of student's design.

431 Magazine Editing and Production Practice (3)

Prereq: 430. Practice course where students completing 430 can apply their knowledge to production of a quarterly magazine done regularly by the School of Journalism. Each student assigned a specific position on magazine. Laboratory magazines produced in course of qtr.

432 Specialized Magazines (3)

Prereq: perm. As time of mass circulation magazine appears to wane, specialty magazine (professional, special interest, business, industrial, learned, demographic) strengthens. This course considers publishing problems in all these areas usually in form of case studies. Students asked to draw a prospectus for a specialty magazine and audience studies are carried out.

441 Magazine Feature Writing (4)

Prereq: 231 and 333, 15 hrs English or perm. Writing and marketing factual magazine feature articles of various types. Finding subjects, securing photographs, writing articles and surveying markets.

442 Advanced Magazine Feature Writing (3)

Prereq: 441. Writing and marketing magazine articles. Emphasis on specialized markets.

450 Advertising Copy Writing (3)

Prereq: 250 and advertising or PR majors or perm. Effective persuasion in print.

452 TV Newsfilm Production and Editing (3)

Prereq: 351 or perm. Principles and practices of TV newsfilm production and editing. Similar to R-TV 452.

455 Seminar in Broadcast News (3)

Prereq: perm. Discussion of problems—operational, social, economic, legal and ethical—faced by broadcasters reporting public affairs.

461 Specialized Journalism (3)

Prereq: sr rank and perm. Seminar approach to individual study of journalistic areas of special interest to individual students.

462 Internship (3)

Prereq: perm before beginning internship. Conference course for students who have completed internship with an approved organization. Student will submit a comprehensive report analyzing his internship experience.

464 Reporting of Public Affairs (3)

Prereq: 333, sr rank, major or perm. Problems of preparing in-depth, interpretative and analytical reports on public affairs for mass media, with practice in writing such reports. Focus mostly on contemporary controversial issues.

465 The Editorial Page (3)

Prereq: 333, sr rank, major or perm. Editorial page in opinion formation. Problems of content selection and presentation. Extensive writing of analytical and persuasive editorials and interpretive articles in depth.

466 International Communications (5)

Prereq: sr rank and major or perm. Development and operations of world mass communication channels and agencies. Comparative analysis of media, media practices and flow of news throughout the world. Relation of communication practices to international affairs and understanding.

467 Foreign Correspondence (3)

Prereq: sr rank and 466 or perm. Role of foreign correspondent in news-gathering. History, scope, techniques.

471 Public Relations Principles (5)

Prereq: 333, sr rank, and PR major or perm. Public relations planning and techniques; selected communication studies and theories. Polling, defining objectives and analysis of public relations messages.

472 Advanced Public Relations (4)

Prereq: 471 or perm. Planning public relations programs and projects, including selection of audiences, messages and media, and evaluation of effects. Project in area of student's interest.

481 Newspaper Management (3)

Prereq: 333. Problems in publishing affecting all departments.

482 Radio-Television Advertising and Management (4)

Prereq: 250 or perm. See title.

484 Supervising School and College Publications (4)

Prereq: 12 hrs or perm. Conference course for advisers of high school and college newspapers, magazines and yearbooks. Problems relating to staff selection, content of publication, copy, layout, photography, printing, advertising and business phases. In summer sessions publications workshop analyzed on a case study basis.

491 Research in Journalism and Communications (1-15)

Prereq: perm.

LAW ENFORCEMENT

The Chillicothe campus of Ohio University offers a two-year law enforcement program. Students who complete the program will receive an associate in science degree in law enforcement.

These courses are available only at the Chillicothe campus.

101 Introduction to Law Enforcement Technology (3)

Philosophy and history of law enforcement; overview of crime and police problems; organization and jurisdiction of local, state and federal law enforcement agencies; survey of professional career opportunities and qualification required.

102 Constitutional, Criminal and Civil Law (3)

Detailed instruction in mechanics and legal procedures by which police officer performs his duty in such matters as affidavits, appearances, grand jury procedures, information, presentments, indictments, appeals, jurisdiction of courts, trial and jury procedures, arraignments and hearings. Discussion of statutes dealing with specific crimes.

103 Police Role in Crime and Delinquency (3)

Prereq: 101 or perm. Extent and distribution of crime and delinquency, with special emphasis on basic factors and conditions contributing to problem; some case study and evaluation of community resources in prevention field and detailed review of role of school, family, religious institutions, law enforcement agencies, courts and correctional institutions. Part law enforcement agencies play in juvenile delinquency control, organization and functions of related juvenile agencies, laws governing handling of juvenile offenders and a brief resume of the juvenile court and its jurisdiction.

201 Courts Structure, Procedure and Rules and Tests of Evidence (4)

Prereq: 102 or perm. Instruction designed to acquaint officer with court's system in Ohio, its functions, authority and duties. Explains workings of all courts of record and provides description of Mayor's Courts which are the only "courts not of record" in State of Ohio. Kinds and degrees of evidence. Admissibility of evidence in criminal court cases, materiality and competency of evidence. Distinction between admissions and confessions; exceptions to hearsay rule; types of evidence.

202 Cybernetics (3)

Prereq: 103 or perm. Application and use of computers and/or automated systems for rapid storage and retrieval of information. Types of electronic data processing systems and their compatability with contemporary police operations explored.

203 Law Enforcement, Administration and Supervision (3)

Prereq: 103 or perm; 2nd yr law enforcement technology students or law enforcement personnel. Principles of law enforcement agency administration. Organization, planning and research, management, personnel management, training and public relations. Administrative functions in vice control, crime delinquency prevention and control, patrol, investigation, communications, statistics and records.

204 Vice and Narcotic Control (3)

Exploration of history, identification and effects of narcotics. Narcotic and vice problem as it exists and penal statutes affecting control of narcotics and vice studied.

205 Police Community Relations (3)

Nature of relationships between police and various segments of community; racial and/or ethnic minorities, news media, clergy and youth explored. Historical reasons for present dilemma and suggested changes to alleviate these problems.

206 Criminal Investigation (3)

Prereq: 201. Fundamentals of investigation; crime scene search and recording; collection and preservation of physical evidence, scientific aids, *modus operandi*, sources of information, interviews and interrogation, follow-up and case preparation. 3 lec, 2 lab.

207 Traffic Enforcement, Education and Engineering (3)

Prereq: 102. Law relating to registration of motor vehicles, driver's license, Vehicle Code sections most often encountered and violated, regulation and traffic control, traffic accident investigation, traffic accident report forms; types and uses.

208 Arrest, Search and Seizure (3)

Prereq: 2nd yr law enforcement technology students or law enforcement personnel or perm. In-depth discussion of moral and legal obligations in use of police weapons. Includes legal provisions, safety precautions and restrictions in use of firearms. Advanced theories and application, police combat shooting, all-weather firing and new developments in police weaponry. Training for student in lawful methods of search and seizure and discussion of search of persons, places and things, with emphasis on legality. Applicable court decisions and rulings presented and discussed. 3 lec, 2 lab.

LATIN

See Foreign Languages and Literatures

LATIN AMERICAN STUDIES

See International Studies

LIBRARY SCIENCE

201 The Use of Library Resources I (3)

(fall, spring) Effective use of modern library reference resources. Required for minor in library science. Stresses general works. May be taken without 202 by those who do not choose to minor in library science.

202 The Use of Library Resources II (3)

Prereq: 201. (winter) Training in effective use of modern library reference resources. Required for minor in library science. Stresses specific subject reference materials.

301 Library Services for Children (4)

(spring) Book selection and group work with children, including story programs, book talks, library lessons and practical experience with children.

302 Books for High School Readers (4)

(winter) Books considered for whole reading approach to literature, including pleasure reading outside classroom.

402 Advanced Library Studies (2-5)

Prereq: perm. Elective designed for student who wants to explore some facet of library work in greater depth.

403 Classification and Cataloging (5)

(fall) Classifying and cataloging books and materials with practice in preparation of card catalog for high school media center. Required for minor in library science.

LIBRARY TECHNOLOGY

Ohio University-Lancaster offers a two-year program for library technical assistants leading to an associate in applied science degree. Requirements for the degree consist of 46 hours of LTA career courses, 25 hours in related courses and 23 hours in general education courses. This program prepares the student for employment as supportive staff in libraries between the professional librarian and the library clerk.

These courses are available only at the Lancaster campus.

101 Introduction to Libraries and Library Technology (4)

General introduction to libraries and their organization. Designed for students interested in employment as library technical assistants in special, school, public or college libraries.

102 Support Operations for Public Services I (4)

Designed to acquaint library technology students with various kinds of public services including circulation control systems, location of information and public relations.

103 Support Operations for Public Services II (4)

Emphasizes materials and techniques in reference and information services. Includes understanding of skills needed in patron interviews.

104 Support Operations for Technical Services I (3)

Basic procedures in ordering, receiving, organizing and processing of printed library materials.

201 Support Services for Specific Groups I (4)

Introduces different types of library users — children, young adult, disadvantaged, minorities, etc. Provides background information concerning material, print and nonprint, to enable LTA to direct public to library service which will best serve his needs.

202 Support Services for Specific Groups II (4)

Specific techniques with which LTA assists librarian in direct service to community of library users. Introduction of new and innovative methods of servicing total library community.

203 Library Technician Internship (3)

Work experience in library putting into practice skills acquired to this point. Practice work will be equivalent of 1 full working day a wk.

204 Support Operations for Technical Services II (5)

Introduction to simple cataloging and classifying procedures.

205 Library Technician Internship II (8)

Work experience — equivalent of 2 full days per wk (16 hrs) in library/media center. Exposure to variety of activities under qualified professional staff. Weekly seminar required.

206 Audio-Visual Methods and Materials (4)

Operation and simple maintenance of audio-visual equipment and technical procedures used in processing, cataloging, circulating and servicing requests for audio-visual materials.

207 Preparation of Audio-Visual Materials (3)

Preparing simple audio-visual materials and sources of commercially prepared materials.

40 Intensive English as a Foreign Language (15)

(fall, spring) Full-time intensive study of English as foreign language for students beginning at elementary level. Normally followed by 45. 4 classroom practice and recitation hrs and 1 required language lab practice hr daily. Primary emphasis is on developing mastery of spoken English.

45 Intensive English as a Foreign Language (15)

Prereq: 40. (winter, summer) Full-time intensive study of English as foreign language. Follows 40 to constitute a 20-week intensive course. 4 hrs of classroom practice and recitation and 1 hr of required language lab practice daily. Practice of spoken English continues, but primary emphasis shifts to mastery of usage of written English.

50 Intensive English as a Foreign Language (15)

Prereq: intermediate proficiency level. (fall, winter, summer) Full-time intensive study of English as foreign language for students beginning at intermediate level. Not a sequence with either 40 or 45. 4 hrs of classroom practice and recitation and 1 hr of required language lab practice daily. Emphasis on both spoken and written English usage. In addition to scheduled EngFL class hrs, the student devotes 6-8 hrs per wk to auditing appropriate University classes.

60 Supplemental English as a Foreign Language (8)

Prereq: advanced proficiency level. Semi-intensive supplemental study of English as foreign language at advanced level for students enrolled in a part-time academic program. 2 hrs of classroom practice and recitation daily. Emphasis on both spoken and written English usage. May follow either 45 or 50.

Linguistics

A major in linguistics is not offered. Students desiring to prepare for graduate study in linguistics should take at least 350, 460 and 470. Programs in related fields in communication, social sciences and humanities can be enriched by inclusion of these and other linguistics courses open to undergraduates. See the entry, Linguistics, under Special Curricula in the College of Arts and Sciences, p. 28.

270 The Nature of Language (5)

Nontechnical investigation into basic nature of human language.

LINGUISTICS

English as a Foreign Language Linguistics

English as a Foreign Language

Credit hours listed for OPIE 40, 45, 50, 60 are not applicable to degree requirements. For English for non-native speakers applicable to degree requirements, see English 160.

280 Language and Culture (4)

(spring) Similarities and differences of language behavior in a variety of cultural contexts.

350 Introduction to General Linguistics (5)

Prereq: jr or sr rank. (fall) Technical introduction to devices of language description, and survey of relationships and applications of linguistics to other disciplines.

380 Language and Culture (5)

(spring) Similarities and differences of language behavior in a variety of cultural contexts. (Same as 280 except paper required)

395 Introduction to Area Linguistics (3 or 5)

Prereq: perm. (fall) Investigation of linguistic characteristics of a specific group or subgroup of languages within Malayo-Polynesian or African families.

460 Phonology (5)

Prereq: 350 or with 350. (fall) Introductory course in analysis of sound systems of natural languages.

470 Syntax (5)

Prereq: 350. (winter) Introduction to theory and application of grammatical analysis of natural languages.

486 Theories of Language Learning (3)

Prereq: 350. (spring) Introduction to theories of 1st and 2nd language acquisition and their implication for language teaching methodology.

490 Special Studies in Linguistics (1-3)

Prereq: perm. Independent study of a particular area of interest in linguistics.

491 Social Dialectology (3)

Prereq: jr or sr rank. (fall) Introduction to linguistic interrelationships between language and social groups.

MALAY

See Foreign Languages and Literatures

MANAGEMENT

The management major is designed primarily for those who expect to be responsible for the work of another person. The courses in this curriculum are tailored for present and future supervisors, executives or administrators in business, government and other institutions.

In addition to the BBA degree requirements, a student majoring in management must complete a *departmental core* composed of the following three courses which should be taken during the junior year: BIC 425—Management of Human and Technological Information Systems; BusL 356—Law of the Management Process; Mgt 440—Organizational Behavior—Leadership and Motivation.

A student majoring in management must also complete courses in one of the two *structured concentration tracks*: (1) Manpower Management Track: Mgt 420—Administration of Personnel; Mgt 425—Labor Relations; Mgt 426—Manpower Management. (2) Organizational Behavior Track: Mgt 445—Organizational Behavior—Work Groups and Formal Organizations; Mgt 494—Management Research; Mgt 496—Organizational Behavior—Managing Change.

Any student who does not care to select one of the two tracks can, with prior counsel and written approval of his adviser, tailor a track from existing course offerings in the department of organizational science.

Management

300 Management (4)

Prereq: jr rank. Behavior and decision process in organizations.

420 Administration of Personnel (4)

Prereq: sr rank. Compendium of practices in personnel management. Consideration of such areas as employee selection, training, performance evaluation and wage and salary administration.

421 Personnel Management Problems (4)

Prereq: 420. Personnel problems and their relation to various ethological concepts. A case approach.

425 Labor Relations (4)

Prereq: sr rank. Nature of collective bargaining; labor-management conflict or consensus; grievance procedures; arbitration; contract administration.

426 Manpower Management (4)

Prereq: 420 and 425. Advanced course in manpower management, integrating personnel and labor relations functions at planning and policy-making level.

440 Organization Behavior—Leadership and Motivation (4)

Prereq: 300 or perm. Conceptual framework of behavioral sciences to management and organizations. Motivation and leader behavior within organizational settings.

445 Organizational Behavior—Work Groups and Formal Organizations (4)

Prereq: 300. Organizational theory and behavior emphasizing formal organizational theory and work group behavior. Concentrates on interaction between organization, its environment and its members, and influences of informal work groups on member behavior.

484 International Comparative Management (4)

Prereq: sr rank. Survey and analysis of similarities and differences in management systems, processes and styles, as well as evaluation of changes and their impact in selected groups of countries.

491 Seminar (3, 4 or 5)

Prereq: perm. Selected topics of current interest in management and organizational behavior area.

492 Management Thought (4)

Prereq: sr rank. Review of development of managerial theories from 5000 B.C. to present with consideration of their application to present organizational settings.

493 Readings (1-15)

Prereq: perm. Readings in selected fields of management and organizational behavior. Topics selected by student in consultation with faculty member.

494 Management Research (4)

Prereq: sr rank. Practical application of research methods in behavioral sciences to management problems, emphasizing research available and its use in decision making and in solving managerial problems.

495 Research (3, 4 or 5)

Prereq: perm. Methodology, analysis of data and preparation of research findings.

496 Organizational Behavior—Managing Change (4)

Prereq: 440. Planning and implementing change in organizational settings.

497 Independent Research (1-15)

Prereq: perm. Research in selected fields of management and organizational behavior under direction of faculty member.

ternational marketing, marketing research, quantitative marketing and sales management.

In addition to the BBA degree requirements, a student majoring in marketing must complete 24 hours of marketing courses at the 300 or 400 level including 463.

101 Consumer Survival in the Marketplace (4)

How consumer can adapt himself to modern marketing environment so as to optimize satisfaction derived from spending his money.

301 Marketing Principles (4)

Prereq: Econ 101 or 301 and jr rank. Principles of marketing management with emphasis on practices and problems of marketing manager and environment in which he operates supplemented with business cases.

302 Marketing Management (4)

Prereq: 301. Analysis of problems encountered by manufacturers and middlemen in marketing consumer goods and industrial products.

303 Marketing Problems and Cases (4)

Prereq: 301. Problems facing manufacturers and middlemen in marketing programs. Students will develop integrated marketing programs based on cases taken from actual business situations. Emphasis on development of analytical skills.

404 Management of Distribution (4)

Prereq: 301. Problems encountered by manufacturer in establishing and maintaining effective distribution system, concentrating on channel design and strategies.

425 Industrial Marketing (4)

Prereq: 301. Investigation and analysis of problems involved in marketing of industrial products.

441 International Marketing (4)

Prereq: 301. Marketing problems, opportunities and organization of multinational firms to serve overseas markets. Government aids and impediments and comparison of markets and marketing techniques in U.S. and foreign countries.

444 Consumer Behavior (4)

Prereq: 301 and 8 hrs psychology and/or sociology. Individual, social and cultural influences that affect consumer behavior. Consideration of explanatory and predictive models.

446 Sales Forecasting (4)

Prereq: 301. Forecasting techniques and methodologies applied to estimation of future environments in which business and marketing managers will have to operate.

MARKETING

The marketing major prepares professionals who are concerned with delivery of a standard of living to society.

Course work is available in the fields of consumer behavior, industrial marketing, in-

450 Management of Promotion (4)

Prereq: 301. Problem-solving course leading to development and management of firm's promotional "mix" with emphasis on use of mass media and on stimulation of reseller's cooperation.

458 Sales Management (4)

Prereq: 301. Principles and practices in planning, organizing and controlling sales force. Selection, training, compensating, supervising and stimulating salesmen. Analysis of sales potentials and costs.

461 Social Issues of Marketing (4)

Prereq: 301. Designed to increase awareness of future marketing managers of contemporary social issues and legal requirements of marketplace. Social critics, past and present, and their criticisms, including excessive promotion, unsafe and unnecessary products, high prices and possible societal and governmental responses to these criticisms.

462 Product Development (4)

Prereq: 301. Examination of new product development activities to identify significant factors to be studied and decisions required in researching, manufacturing and marketing new products.

463 Marketing Strategy (4)

Prereq: 301 plus 8 additional hrs of 300 or 400 level marketing courses. Analysis of preparation and organization of over-all marketing plans, and elements of marketing mix. Also developed are merchandising analyses, objectives and strategies which take into consideration the ever-changing consumer, trade and legal environment.

478 Marketing Theory (4)

Prereq: 301. Investigation of theoretical framework of marketing operations and marketing environment.

479 Marketing Research (4)

Prereq: 21 hrs business administration, 8 hrs marketing. Techniques involved in collection, tabulation and analysis of marketing information.

480 Mathematical Models of Marketing Analysis (4)

Prereq: 479. Quantitative techniques that can be used in analysis of marketing problems and application of these methods to problem situations. (Taught on team basis with marketing and quantitative methods faculty.)

490 Research (3, 4, or 5)

Prereq: perm. Methodology, analysis of data and preparation of research findings.

491 Seminar (3, 4 or 5)

Prereq: perm. Selected topics of current interest in marketing area.

493 Readings (1-15)

Prereq: perm. Readings in selected fields of marketing. Topics selected by student in consultation with faculty member.

497 Independent Research (1-15)

Prereq: perm. Research in selected fields of marketing under direction of faculty member.

498 Internship (1-15)

Prereq: perm.

MATHEMATICS

The minimum requirement for the AB degree is 39 quarter hours in courses numbered 200 and above, nine hours of which must be at the 400 level or above, all taken for grade.

The minimum requirements for the BS degree are as follows:

Math 360A, Math 360B plus at least two quarters each from two of the following sequences: Math 411A, B; Math 413A, B, C; Math 460A, B, C; Math 480A, B.

Plus at least two quarters each from two other sequences from the list above or from the following list: Math 407A, B, C; Math 440, 441, 442; Math 444A, B; Math 450A, B, C; Math 470A, B.

All of the above courses must be taken for grade.

Before choosing a special program it is strongly recommended that the student consult the Mathematics Department office where he will be assigned an adviser with whose help a program will be designed to meet the student's needs.

A student wishing to study mathematics strictly from a mathematician's viewpoint, in specially designed courses, should inquire about our Honors Program. (Standard courses listed in the bulletin are designed to serve many departments and purposes.)

Mathematics Education and Teaching Certification—see page 54.

Precalculus Courses. Math 113, 115, 116 and 130 are essentially remedial precalculus courses. Before taking Math 263A it is recommended that the student take a self-administered test available at the Mathematics Department office or the University College to decide if he needs any of the above courses.

Prerequisites. All prerequisites are recommended but not required.

Mathematics

011 Elementary Algebra (5)

(when there is sufficient demand) For students with no high school algebra. Credit and points not counted toward degree.

109A The Mathematical World—Number and Space (3)

(on demand, with approval of mathematics dept chairman) Terminal liberal arts courses for students with little or no background in college math. Basic topics from elementary and advanced branches of mathematics treated descriptively and in historical perspective. Not recommended to satisfy science or mathematics requirements.

109B The Mathematical World—Number and Space (3)

(on demand, with approval of mathematics dept chairman) Continuation of 109A. See 109A for description.

113 Algebra (5)

Prereq: at least 2 yrs h.s. math. Review topics in high school algebra including properties of rational field and real numbers. Graphs, relations and functions with domain and range analysis, composite and inverse functions, theory of equations and mathematical induction and inequalities.

115 Introduction to Mathematics (5)

Prereq: 3 yrs h.s. math. Field postulates and real numbers; graphs and functions. Composite and inverse functions, equations of higher degree, progressions, complex numbers, mathematical induction.

116 Analytic Trigonometry (2)

Prereq: 2 yrs h.s. math. Trigonometric functions and their properties, identities, equations and applications.

120 Elementary Topics in Mathematics (5)

Prereq: 2 yrs h.s. math. Selection of topics from mathematics including functions, sequences, geometry, probability and statistics. For elementary education majors and others needing a terminal course in mathematics.

121 Foundations of Elementary Mathematics (4)

Prereq: 2 yrs h.s. math. Mathematical reasoning, structure of number system, introduction to geometry. For elementary education majors and others needing a terminal course in mathematics.

130 Plane Analytic Geometry (3)

Prereq: 113, 115 or equiv. (fall, winter) May be taken concurrently with 113 or 115. Straight lines, circles, conic sections, functions and graphing of functions studied.

163A Introduction to Calculus (4)

Prereq: 2 yrs h.s. math or 113 or equiv. (fall, winter) Presents survey of basic concepts of calculus. A sequence for students who want an introduction to calculus but do not need the depth of Math 263ABC. Note: Students strongly advised to come to departmental office for advice in attempting a transfer from 163 sequence to 263 sequence.

163B Introduction to Calculus (4)

Prereq: 163A. (winter, spring) Continuation of 163A. Note: Students strongly advised to come to departmental office in attempting a transfer from 163 sequence to 263 sequence.

207 Introduction to Number Theory (5)

Prereq: 113, or 4 yrs h.s. math, or perm of math dept. (Cannot be taken for credit by those who have taken 407.) Introduces student to 1 of the most simple yet most challenging branches of mathematics. Among topics discussed will be: mathematical induction, unique prime factorization, Euclidean algorithm, Diophantine equations, congruences and divisibility.

213 Elementary Linear Algebra (5)

Prereq: 113, or 4 yrs h.s. math, or perm of math dept. Introduces elementary properties of matrices, determinants and linear systems.

214 Elementary Abstract Algebra (5)

Prereq: 113, or 4 yrs of h.s. math, or perm of math dept. (winter, spring) Elementary topics in abstract algebra selected from groups, rings, integral domains and fields.

230A Foundations of Geometry (3)

Prereq: 113, or 4 yrs h.s. math, or perm of math dept. (fall, winter) Introduction to axiomatic mathematics via 2 finite geometries and a variety of interpretive models. Develops plane Euclidean and non-Euclidean geometries in rigorous fashion from a modified Hilbert axiom system.

230B Foundations of Geometry (3)

Prereq: 230A. (winter, spring) Continuation of 230A. See 230A for description.

263A Analytic Geometry and Calculus (5)

Prereq: 113, or 115, and 116, 130, or 4 yrs h.s. math, or perm of math dept. 263A-B-C is a basic introduction to calculus with emphasis on techniques and their applications. Topics

covered: functions and limits, differentiation and integration, analytic geometry, vectors, transcendental functions, polar coordinates, solid analytic geometry, partial differentiation, multiple integrals, infinite series. NOTE: Students strongly advised to come to departmental office in attempting a transfer from 163 sequence to 263 sequence.

263B Analytic Geometry and Calculus (5)
Prereq: 263A, or equiv. Continuation of 263A. See 263A for description.

263C Analytic Geometry and Calculus (5)
Prereq: 263B. Continuation of 263A-B. See 263A for description.

H294 Honors Math for Freshmen (6-10)
Prereq: perm. (fall) Special program for students of unusual ability.

H295 Honors Math for Freshmen (6-10)
Prereq: H294 or perm. (winter) Special program for students of unusual ability.

H296 Honors Math for Freshmen (6-10)
Prereq: H295 or perm. (spring) Special program for students of unusual ability.

H297 Honors Math for Sophomores (6-10)
Prereq: H296 or perm. (fall) Special program for students of unusual ability.

H298 Honors Math for Sophomores (6-10)
Prereq: H297 or perm. (winter) Special program for students of unusual ability.

H299 Honors Math for Sophomores (6-10)
Prereq: H298 or perm. (spring) Special program for students of unusual ability.

320 Teaching of Mathematics in Secondary School—Part I (2)
(fall, spring) Orientation of professional mathematics education on secondary school level.

333 Elementary Projective Geometry (3)
Prereq: 230B or perm. (winter) Topics in synthetic projective geometry.

340 Differential Equations (5)
Prereq: 263C. Ordinary differential equations and related topics.

350A Introduction to Mathematical Statistics (3)
Prereq: 263B. (begins fall and winter) Probability and sampling theory with applications. Topics in statistics.

350B Introduction to Mathematical Statistics (3)

Prereq: 350A. Continuation of 350A. See 350A for description.

360A Intermediate Analysis (3)

Prereq: 263C. (fall, winter) Consists of rigorous study of following topics: properties of real numbers, limits, sequences, infinite series, continuity and differentiability of real valued functions on subsets of the real line, Riemann integration and power series.

360B Intermediate Analysis (3)

Prereq: 360A. (winter, spring) Continuation of 360A. See 360A for description.

400 History of Mathematics (3)

Prereq: math major, jr, sr rank. (spring, summer) Survey of main lines of mathematical development in terms of contributions made by great mathematicians.

406A Foundations of Mathematics (3)

Prereq: 213 and 214. (fall, winter) Axiomatic development of real number system.

406B Foundations of Mathematics (3)

Prereq: 213, 214. (winter, spring) Introductory topics in set theory.

407A Number Theory (3)

Prereq: 263C. (begins fall) Topics in ordinary algebraic number theory.

407B Number Theory (3)

Prereq: 407A. Continuation of 407A. See 407A for description.

407C Number Theory (3)

Prereq: 407B. Continuation of 407A-B. See 407A for description.

410 Matrix Theory (3)

Prereq: 263C. (fall, spring) Matrix algebra, matrix solutions of linear equations, linear dependence and independence, rank and equivalence, determinants, eigenvalues and eigenvectors.

411A Linear Algebra (3)

Prereq: 213. (begins winter) Vector spaces and linear transformations, characteristic values, quadratic forms, dual spaces, normal forms and Jordan canonical forms.

411B Linear Algebra (3)

Prereq: 411A. Continuation of 411A. See 411A for description.

413A Introduction to Modern Algebra (3)

Prereq: 213 and 214. (fall, spring, summer) Elementary theory of groups, rings and fields.

413B Introduction to Modern Algebra (3)
Prereq: 413A. (fall, winter) Continuation of 413A. See 413A for description.

413C Introduction to Modern Algebra (3)
Prereq: 413B. (spring) Continuation of 413A-B. See 413A for description.

419 Topics in Algebra (3)

Prereq: perm. When demand is sufficient a course in some phase of algebra will be offered under this number.

420 Teaching of Mathematics in Secondary Schools—Part II (3)

Prereq: jr rank. (fall, spring) Analysis of basic ideas of algebra and geometry. Methods of presenting topics in these subjects to secondary school students. (Not counted toward math major.)

429 Topics in Mathematics of Elementary and Secondary Schools (1-3)

Prereq: perm and sr rank. (on demand) How and why concepts of advanced abstract mathematics should enforce curricula of grades K-12.

433 Projective Geometry (3)

Prereq: 213, 333 or perm. (spring) Develops projective geometry analytically by means of homogeneous coordinates and discusses properties by means of linear transformations and transformation groups.

434 Geometries (3)

Prereq: 433. (on demand) Studies subgeometries of projective geometry generated by affine, similarity and Euclidean transformations.

439 Topics in Geometry (3)

Prereq: perm. When demand is sufficient a course in some phase of geometry will be offered under this number.

440 Vector Analysis (3)

Prereq: 263C. (fall).

441 Fourier Analysis and Partial Differential Equations (3)

Prereq: 340. (winter, spring).

442 Theory of Linear Programming (3)

Prereq: 213 or 410. (spring) Real linear algebra, solutions of systems of equalities and inequalities. Fundamental theorem of duality and equilibrium theorem with applications involving simplex method.

444A Introduction to Numerical Analysis (3)

Prereq: 263C, 340, and CS 253. (begins winter) Polynomial interpolation and approximation; numerical integration and differentiation; numerical solution to differential equations; numerical methods for matrix inversion, determination of eigen values, and solutions of systems of equations.

444B Introduction to Numerical Analysis (3)

Prereq: 444A. Continuation of 444A. See 444A for description.

450A Theory of Statistics (3)

Prereq: 263C. (begins fall) Probability distribution of one and several variables, sampling theory, estimation of parameters, confidence intervals, analysis of variance, correlation and testing of statistical hypotheses.

450B Theory of Statistics (3)

Prereq: 450A. Continuation of 450A. See 450A for description.

450C Theory of Statistics (3)

Prereq: 450B. Continuation of 450A-B. See 450A for description.

460A Advanced Calculus (3)

Prereq: 360B or perm. (begins fall) Critical treatment of limits, continuity, differentiation of functions of 1 and several variables, series and theory of integration.

460B Advanced Calculus (3)

Prereq: 460A. (winter) Continuation of 460A. See 460A for description.

460C Advanced Calculus (3)

Prereq: 460B. (spring) Continuation of 460A-B. See 460A for description.

470A Applied Complex Variables (3)

Prereq: 263C. (winter) Analytic and harmonic functions, Cauchy integral and residue theorems, contour integration, Taylor and Laurent expansions, conformality and linear transformations with applications. Replaces 463A.

470B Applied Complex Variables (3)

Prereq: 470A. (spring) Continuation of 470A. See 470A for description. Replaces 463B.

480A Elementary Point Set Topology (3)

Prereq: 360A,B. (begins fall) Introduction to basic concepts of topology, general topological spaces and metric spaces.

480B Elementary Point Set Topology (3)

Prereq: 480A. (winter) Continuation of 480A. See 480A for description.

490 Selected Topics in Mathematics (3)

Prereq: perm of instructor and chairman. When demand is sufficient, a course in some phase of mathematics will be offered under this number. (May be repeated for credit.)

491 Studies in Mathematics (1-15)

Prereq: 6 hrs of 400-level courses, sr rank or jr rank in Honors College, or perm of chairman and instructor. Selected topics in mathematics studied under guidance of instructor particularly interested in field. (May be repeated for credit.)

Computer Science

The College of Arts and Sciences does not offer a major in computer science alone. Students wishing to concentrate in this area may do so by fulfilling the following requirements in mathematics and in computer science, with at least a 2.0 average in each area.

1. Choose at least 36 hours, including nine hours at the 400 level, from the following list in mathematics: 263A-B-C, 207, 213, 214, 340, 350A-B, 407A-B, 410, 442, 444A-B.

2. Take the following courses in computer science: 201, 202, 308 and 341A.

Anyone wishing to concentrate in computer science should consult with Professor Irwin.

150 Computer Science-Survey (3)

Digital computer machine, its components, operation, control, history and use. Particular emphasis placed on developing influence of digital computer in business, science and humanities. Automation examined.

201 Introduction to Computing (5)

Prereq: 3 yrs' h.s. math. Algorithms, programs and computers. Basic programming and program structure. Programming and computing systems. Debugging and verification of programs. Data representation. Organization and characteristics of computers. Survey of computers, languages, systems and applications. Computer solution of several numerical and nonnumerical problems using 1 or more programming languages.

202 Computers and Programming (5)

Prereq: 201. Computer structure, machine language, instruction execution, addressing techniques and digital representation of data. Computer systems organization, logic design, micro-programming and interpreters. Symbolic

coding and assembly systems, macro definition and generation and program segmentation and linkage. Systems and utility programs, programming techniques and recent developments in computing. Several computer projects to illustrate basic machine structure and programming techniques.

251 Nonnumeric Computer Programming and Logic (5)

Prereq: soph rank. Principles and practice of computer solution of problems not involving extensive numerical calculations. Typical problems exist in natural language analysis and translation, literature search and collation, nonnumeric mathematics, artificial intelligence, pattern recognition, etc.

252 Introduction to Digital Computer Programming for Business (5)

Principles and practice of computer solution of problems in business. Typical problems exist in accounting, quantitative methods and management. Artificial language COBOL used.

253 Introduction to Digital Computer Programming for Engineering and the Physical Sciences (5)

Prereq: Math 263A-B-C. Principles and practice of computer solution of problems involving extensive numerical calculations as found in physical sciences, engineering and numerical mathematics.

254 Introduction to Digital Computer Programming for Behavioral, Educational and Biological Sciences (5)

Prereq: soph rank. Problem organization for computer solution using scientifically oriented algorithmic languages such as FORTRAN and PL/1. Concepts of and practice in logical problem analysis, artificial language syntax and semantics, problem flow, testing and debugging, input/output, artificial intelligence and use of auxiliary storage using appropriate problems in student's field of interest.

308 Introduction to Discrete Structures (5)

Prereq: 201. Review of set algebra including mappings and relations. Algebraic structures including semigroups and groups. Elements of theory of directed and undirected graphs. Boolean algebra and propositional logic. Applications of these structures to various areas of computer science.

341A Programming Languages (5)

Prereq: 202 and 308. Formal definition of programming languages including specification of syntax and semantics. Simple statements including precedence, infix, prefix and postfix notation. Global properties of algorithmic languages including scope of declarations,

storage allocation, grouping of statements, binding time of constituents, subroutines, routines and tasks. List processing, string manipulation, data description and simulation languages. Run-time representation of program and data structures.

341B Compiler Construction (5)

Prereq: 341A. Review of program language structures, translation, loading, execution and storage allocation. Compilation of simple expressions and statements. Organization of a compiler including compile-time and run-time symbol tables, lexical scan, syntax scan, object code generation, error diagnostics, object code optimization techniques and overall design. Use of computer writing languages and bootstrapping.

341C Systems Programming (5)

Prereq: 341A and 376. Review of batch process systems programs, their components, operating characteristics, user services and their limitations. Implementation techniques for parallel processing of input/output and interrupt handling. Overall structure of multiprogramming systems on multi-processor hardware configurations. Details on addressing techniques, core management, system accounting and other user-related services. Traffic control interprocess communication, design of system modules and interfaces. System updating, documentation and operation.

361 Numerical Analysis I (5)

Prereq: 253 and Math 340. Thorough treatment of solutions of equations, interpolation and approximations, numerical differentiation and integration and numerical solution of initial value problems in ordinary differential equations. Selected algorithms programmed for solution on computers.

362 Numerical Analysis II (5)

Prereq: 253, Math 213 and Math 340. Solution of linear systems by direct and iterative methods, matrix inversion, evaluation of determinants and calculation of eigenvalues and eigenvectors of matrices. Application to boundary value problems in ordinary differential equations. Introduction to numerical solution of partial differential equations. Selected algorithms programmed for solution on computers.

376 Data Structures (5)

Prereq: 202 and 308. Basic concepts of data. Linear lists, strings, arrays and orthogonal lists. Representation of trees and graphs. Storage systems and structures and storage allocation and collection. Multilinked structures. Symbol tables and searching techniques. Formal specification of data structures, data structures in programming languages and generalized data management systems.

381 Information Organization and Retrieval (5)

Prereq: 376. Structure of semiformal languages and models for representation of structured information. Aspects of natural language processing on digital computers. Analysis of information content by statistical, syntactic and logical methods. Search and matching techniques. Automatic retrieval systems, question-answering systems. Production of secondary outputs. Evaluation of retrieval effectiveness.

391 Junior Seminar (1)

Prereq: jr rank. Formal presentation by individual students of specified topics from current literature in computer science and defense of interpretations and conclusions. Concurrent with 491-492-493. Participation by all jr and sr students is required and by all faculty is expected.

392 Junior Seminar (1)

Prereq: 391. Continuation of 391. See 391 for description.

393 Junior Seminar (1)

Prereq: 392. Continuation of 391-392. See 391 for description.

401 Mathematical Models of Sequential Machines (5)

Prereq: 308 or Math 214. Definition and representation of finite state automata and sequential machines. Equivalence of states and machines, congruence, reduced machines and analysis and synthesis of machines. Decision problems of finite automata, partitions with substitution property, generalized and incomplete machines, semigroups and machines, probabilistic automata and other topics.

402 Theory of Computability (5)

Prereq: 308 or Math 214. Introduction to Turing machines, Wang machines, Shepherdson-Sturgis and other machines. Godel numbering and unsolvability results, halting problem, Post's correspondence problem and relative uncomputability. Machines with restricted memory access, limited memory and limited computing time. Recursive function theory and complexity classification. Models of computation including relationships to algorithms and programming.

410 Formal Languages and Syntactic Analysis (5)

Prereq: 341A, 376. Definition of formal grammars: arithmetic expressions and precedence grammars, context-free and finite-state grammars. Algorithms for syntactic analysis: recognizers, backtracking, operator precedence techniques. Semantics of grammatical con-

structs: reductive grammars. Floyd productions, simple syntactical compilation. Relationship between formal languages and automata.

411 Artificial Intelligence and Heuristic Programming (5)

Prereq: 376 and Math 350B. Definition of heuristic versus algorithmic methods, rationale of heuristic approach, description of cognitive processes and approaches to mathematical invention. Objectives of work in artificial intelligence, simulation of cognitive behavior and self-organizing systems. Heuristic programming techniques including use of list processing languages. Survey of examples from representative application areas. Mind-brain problem and nature of intelligence. Class and individual projects to illustrate basic concepts.

490 Special Problems in Computer Science (1-15)

Prereq: perm. Special project in 1 of various sub-fields of computer science or application area studied, investigated and/or solved by individual student or small group working in close relationship with instructor. Suitable problems might include construction of compiler for special purpose artificial language, perfection of computer code to solve some significant problem or study of coherent sub-field of computer science. May be repeated for credit.

491 Senior Seminar (1)

Prereq: sr rank. Formal presentation by individual students of specified topics from current literature in computer science and defense of interpretation or conclusion. Concurrent with 391-392-393. Participation by all jrs and srs is required and by all faculty is expected.

492 Senior Seminar (1)

Prereq: 491. Continuation of 491. See 491 for description.

493 Senior Seminar (1)

Prereq: 492. Continuation of 491-492. See 491 for description.

499 Senior Thesis (1-9)

Prereq: sr rank. Solution of significant problem within field under direction of sr faculty member. May be repeated for credit.

MEDICAL TECHNOLOGY

See Zoology

MENTAL HEALTH TECHNOLOGY

All of these courses must be taken in sequence and are available only to those students who have been admitted to the AA program in mental health technology.

101 Introduction to Mental Health Work (3)

Orientation to field of mental health work. History, definitions, current concepts and roles of various workers in field reviewed and discussed. Aspects of work with patients and agencies treated through field trips.

122 Introduction to Case Work (3)

Prereq: 101; admission to AA program in mental health technology. Basic introduction to social case work practice in clinical setting. Covers theory of social case work, interviewing techniques, admission procedures, legal implications and departmental functions in mental hospital. Provides direct contact with patients, families and community under supervision of trained personnel.

201 Activity Therapies (3)

Survey of treatment roles played by various ancillary therapies. Workshops in program methods and skills, so student becomes familiar with organization, content and application of program material for various age levels, and for use in agency and hospital settings. Course follows in hospital setting.

221 Practicum in Mental Health I (5)

Laboratory experience in hospital setting involving service to patients under supervision of professional staff worker. Includes introduction to mental health work with patients in hospital.

222 Practicum in Mental Health II (5)

Prereq: 221. Allows student some degree of specialization in outpatient work at State Hospital and community agencies.

231 Seminar in Mental Health (3)

Prereq: 122, EdGS 410, EdGS 440. Presentation of cases. Emphasis on development of skills in presentation, handling of problems and sharing of problems with professional staff and with others involved in treatment process. Includes development of skills in referring patients to and utilizing appropriate community resources. Course to be followed in hospital setting.

MILITARY SCIENCE

Army ROTC offers two programs in military science which lead to a commission as a second lieutenant in the United States Army. Both programs are open to those interested in a commission in the Regular Army as well as those interested in a commission in the Army Reserve.

The four-year program consists of the basic course (MSc 101-102-103, 110A-B-C, 201-202-203 and 210A-B-C) taken during the freshman and sophomore years, and the advanced course (MSc 301-302-303, 310A-B-C, 330, 401-402-403 and 410A-B-C) taken during the junior and senior years. All military science courses, both basic and advanced, must be taken in sequence. Students who complete the basic course and are qualified are selected for the advanced course. No obligation is incurred by taking the basic course.

The two-year program is designed specifically to fill the needs of junior college graduates and students of four-year colleges who have not taken ROTC in their first two years. It is composed of a basic summer camp (MSc 230) and the advanced course. Students interested in entering this program should contact the Military Science Department before February of the year in which they will attend the basic summer camp.

101 Introduction to Military History (1)

(fall) American military history with emphasis on factors contributing to the development of military art as practiced by the U.S. Army. Scheduled concurrently with 110A; meets 1 hr each wk.

102 American Military History I (1)

Prereq: 101 or perm. (winter) Continuation of 101 with emphasis on significant lessons learned from American military history and their importance as guidelines in development of the U.S. Army in the past and future. Meets 1 hr each wk.

103 American Military History II (1)

Prereq: 102 or perm. (spring) Continuation of 102. Meets 1 hr each wk.

110A Leadership Laboratory (0)

Prereq: enrollment in military science basic course. (fall) Basic fundamentals of leadership, drill and exercise of command. Scheduled concurrently with 101. Meets 1 hr each wk.

110B Leadership Laboratory (0)

Prereq: enrollment in 102 or perm. (winter) Evolution of weapons, with stress on modern weapons. Practical exercise in marksmanship, care and maintenance of individual weapons. Meets 1 hr each wk.

110C Leadership Laboratory (0)

Prereq: 110A. (spring) Continuation of 110A. See 110A for description.

201 Introduction to Operations (2)

Prereq: 103 or perm. (fall) Use of maps, aerial photographs and terrain factors to facilitate pursuit of study in other subjects requiring these skills. Scheduled concurrently with 210A. Meets 2 hrs each wk.

202 The U.S. Defense Organization (2)

Prereq: 201 or perm. (winter) Objectives and instruments of national power, strategy and security. Organization, missions and functions of the U.S. Army and roles of other armed services. Meets 2 hrs each wk.

203 Introduction to Tactics (2)

Prereq: 202 or perm. (spring) Small unit tactics, emphasizing importance of firepower, movement and communication. Review of organization of basic military teams and their employment. Meets 2 hrs each wk.

210A Leadership Laboratory (0)

Prereq: 110C. (fall) Continuation of 110A-C with emphasis on functions, duties and responsibilities of junior leaders. Special attention to continued development of leadership potential. Meets 1 hr each wk.

210B Leadership Laboratory (0)

Prereq: 210A. (winter) Continuation of 210A. See 210A for description.

210C Leadership Laboratory (0)

Prereq: 210B. (spring) Continuation of 210A-B. See 210A for description.

230 Basic Army ROTC Summer Camp (0)

Prereq: perm. (summer) 6-wk field training session conducted at an army installation for students entering 2-yr program. Provides necessary instruction to compensate for material covered in 100 and 200-level courses on campus. Must be completed before student enrolls in advanced military science courses. Normally scheduled between soph and jr yrs. Students should apply for admission in February of the year during which they wish to attend summer camp.

301 Leadership and Management I (2)

Prereq: 203 or 230, perm. (fall) Educational psychology and practical application of techniques in planning and presenting instruction, with emphasis on military methods. Meets 2 hrs each wk.

302 Leadership and Management II (2)

Prereq: 301 or perm. Principles and techniques of leadership including basic qualities of the leader and special problems of military leadership. Psychological, physiological and sociological factors affecting human behavior and proven techniques of military leadership. Meets 2 hrs each wk.

303 Fundamentals and Dynamics of the Military Team (A) (2)

Prereq: 302 or perm. (spring) Operational methods, leadership techniques and communications systems used in tactical employment of small units. Meets 2 hrs each wk.

310A Advanced Leadership Laboratory (0)

Prereq: enrollment in military science advanced course. (fall) Development of proficiency and leadership potential by participation in planning and conducting tactical training, drill and ceremonies, and other military subjects. Meets once each wk for 2 hrs.

310B Advanced Leadership Laboratory (0)

Prereq: enrollment in advanced course. (winter) History and roles of combat arms and supporting services, with emphasis on career opportunities for junior officers. Meets 1 hr each wk.

310C Advanced Leadership Laboratory (0)

Prereq: 310A. (spring) Continuation of 310A-B. See 310A for description. Meets 1 hr each wk.

330 Advanced Army ROTC Summer Camp (0)

Prereq: 303. (summer) 6-wk field training session conducted at an army installation; normally scheduled between jr and sr yrs. Includes instruction and application of leadership and military techniques, and performance evaluation of cadets.

401 Leadership and Management III (2)

Prereq: 303 or perm. The United States in contemporary world scene, with emphasis on its impact on leadership and management problems of military services. Meets 2 hrs each wk.

402 Fundamentals and Dynamics of the Military Team (B) (3)

Prereq: 401 or perm. Continuation of 303; staff functions of intelligence and operations, and combining of staff actions, command decisions and tactical employment of units. Decision making and translating decisions into plans and orders emphasized. Meets 3 hrs each wk.

403 Advanced Leadership and Management (2)

Prereq: 402 or perm. (spring) Orientation on military law and the military justice system; and the Army administrative management system. Meets 2 hrs each wk.

410A Advanced Leadership Laboratory (0)

Prereq: enrollment in military science advanced course second yr. (fall) Practical experience as cadet officer in conduct of drill and ceremonies; training management; maintaining discipline, and demonstration of morale and range of factors which affect morale. Meets 1 hr each wk.

410B Advanced Leadership Laboratory (0)

Prereq: second yr advanced course. (winter) Leadership seminar and service orientation.

410C Advanced Leadership Laboratory (0)

Prereq: 410A. (spring) Continuation of 410A-B. See 410A for description.

MUSIC

Applied Music

Music Education

Music History and Literature

Music Theory and Composition

Music Therapy

Independent Studies in Music

Applied Music

Fee for private instruction for all applied music (piano, voice, organ, strings, woodwinds, brass, percussion), \$12 per quarter hour.

Note: A description of the proficiency requirements for applied music may be obtained from the School of Music.

090 Performance Laboratory (0)

Required of all undergraduate music majors and students enrolled in 101-102-103 each qtr.

141 Class Piano (1)

Prereq: perm; music majors only. *M. Stewart.*

141B Class Piano (1)

Prereq: perm; for nonmusic majors. *C. Kasl.*

Music

142 Class Piano (1)

Prereq: perm; 141; music majors only. *M. Stewart*. Continuation of 141.

142B Class Piano (1)

Prereq: perm; 141B; for nonmusic majors: *C. Kasl*. Continuation of 141B.

143 Class Piano (1)

Prereq: perm; 142; music majors only. *M. Stewart*. Continuation of 141 and 142.

143B Class Piano (1)

Prereq: perm; 142B; for nonmusic majors. *C. Kasl*. Continuation of 142B.

147 Class Voice (1)

Prereq: perm. *D. Skentzos, M. Stephenson*. For students enrolling in beginning voice.

148 Class Voice (1)

Prereq: 147. Continuation of 147. See 147 for description.

149 Class Voice (1)

Prereq: 148. Continuation of 147 and 148. See 147 for description.

241 Class Piano (1)

Prereq: 143 or perm; music majors only. *M. Stewart*.

241B Class Piano (1)

Prereq: 143B or perm; for nonmusic majors. *C. Kasl*.

242 Class Piano (1)

Prereq: 241 or perm; for music majors only. *M. Stewart*. Continuation of 241.

242B Class Piano (1)

Prereq: 241B or perm; for nonmusic majors. *C. Kasl*. Continuation of 241B.

243 Class Piano (1)

Prereq: 242 or perm; for music majors only. *M. Stewart*. Continuation of 241 and 242.

243B Class Piano (1)

Prereq: 242B or perm; for nonmusic majors. *C. Kasl*. Continuation of 242B.

244A Marching Band (1, max 12)

Prereq: perm (audition). *T. Lee*. May be repeated.

244B Wind Ensemble (1)

Prereq: perm (audition). *T. Lee*. May be repeated.

244C Symphonic Band (1)

Prereq: perm (audition). *T. Lee*. May be repeated.

245 University Chorus (1, max 12)

Prereq: perm (audition). *M. Wurtz*. May be repeated.

246 Orchestra (1, max 12)

Prereq: perm (audition). *A. Gnam*. May be repeated.

247 Men's Glee Club (1, max 12)

Prereq: perm (audition). *E. Wickstrom*. May be repeated.

248 Women's Glee Club (1, max 12)

Prereq: perm (audition). *D. Skentzos*. May be repeated.

249 Brass Choir (1, max 12)

Prereq: perm (audition). *W. Brophy*. May be repeated.

250 University Singers (1, max 12)

Prereq: perm (audition). *M. Wurtz*. May be repeated.

251 Chamber Orchestra (1, max 12)

Prereq: perm (audition). *A. Gnam*. May be repeated.

252 Opera Workshop (1, max 12)

Prereq: perm (audition). *E. Dybdahl*. May be repeated.

253 Jazz Ensemble (1, max 12)

Prereq: perm (audition). *E. Bastin*. May be repeated.

254 Chamber Music (1, max 12)

Prereq: perm. Participation in playing of standard chamber literature.

255 Trombone Choir (1)

Prereq: perm.

256 Percussion Ensemble (1)

Prereq: perm.

340 Voice (1-6)

Prereq: perm. *E. Dybdahl, E. Merritt, D. Skentzos, M. Stephenson*.

341 Piano (1-6)

Prereq: perm. *E. Jennings, C. Kasl, G. Katz, M. Stewart, R. Syracuse*.

342 Harp (1-6)

Prereq: perm. *L. Jennings*.

343 Organ (1-6)

Prereq: perm. *E. Wickstrom*.

344 Violin (1-6)

Prereq: perm. *H. Beebe*.

345 Viola (1-6)

Prereq: perm. *K. Ahrendt, H. Beebe.*

346 Violoncello (1-6)

Prereq: perm. *L. Conkling.*

347 Double Bass (1-6)

Prereq: perm. *C. Thompson.*

348 Flute (1-6)

Prereq: perm. *K. Borkowski.*

349 Oboe (1-6)

Prereq: perm. *A. Gnam.*

350 Bassoon (1-6)

Prereq: perm. *H. Robison.*

351 Clarinet (1-6)

Prereq: perm. *D. Lewis, H. Robison.*

352 Saxophone (1-6)

Prereq: perm. *A. Gnam, D. Lewis.*

353 Trumpet (1-6)

Prereq: perm. *E. Bastin.*

354 French Horn (1-6)

Prereq: perm. *W. Brophy.*

355 Baritone Horn (1-6)

Prereq: perm. *R. Fink, R. Smith.*

356 Trombone (1-6)

Prereq: perm. *R. Fink, R. Smith.*

357 Tuba (1-6)

Prereq: perm. *R. Fink, R. Smith.*

358 Percussion (1-6)

Prereq: perm.

451 Accompanying (1, max 3)

E. Jennings. Basic problems in accompanying vocalists and instrumentalists—rehearsal techniques, ensemble, pedaling, balance, etc. May be repeated.

452 Piano Pedagogy (2)

C. Kasl. Presentation of various teaching methods, techniques and repertoire. Selection of teaching materials with general knowledge of various levels of ability and analysis of basic concepts of teaching in reference to purposes or objectives.

453 Piano Pedagogy (2)

Prereq: 452. Continuation of 452. See 452 for description.

454 Piano Pedagogy (2)

Prereq: 453. Continuation of 452 and 453. See 452 for description.

455 Conducting (3)

Prereq: 203, 205, 206. *T. Lee.* Basic beat patterns, technique of baton and use of left hand. Experience in conducting choral and instrumental ensembles in works suitable for school groups.

456 Choral Conducting (3)

Prereq: 455. *M. Wurtz.* Specialized conducting techniques for choral groups, including experience in conducting works suitable for high school and college groups.

457 Instrumental Conducting (3)

Prereq: 455. *T. Lee.* Experience in conducting from full score; includes band and orchestral works, suitable for high school groups.

458 Solo Repertoire of Orchestral Instruments (1)

Prereq: 323, perm. Survey of student's major performance instrument literature.

459 Orchestral Instrument Pedagogy (2)

Prereq: perm. Teaching techniques of orchestral instruments and use of selected materials for various levels of ability. Includes practical experience in teaching.

497 Recital (0)

Prereq: perm, jr and sr only. For jr or sr planning to present a public recital and wanting recital recorded on his transcript.

Music Education

160 Music Fundamentals (3)

P. Gagliano, J. Scholten. For elementary education majors only.

161 Music for the Classroom Teacher (3)

Prereq: 160 with minimum grade of C. *P. Gagliano, J. Scholten.* Methods of teaching elementary music. For elementary education majors only.

261 String Methods and Materials (2, max 6)

Prereq: 103, perm. Instruction in stringed instruments with emphasis on teaching techniques, methods and materials.

263 Wind and Percussion Methods and Materials (2, max 12)

Prereq: 103, perm. Instruction in wind and percussion instruments with emphasis on teaching techniques, methods and materials.

364 Secondary School Vocal Techniques and Materials (3)

Prereq: 203, 205, 206, each with minimum grade of C; 455. (winter) *M. Wurtz*. Literature and rehearsal techniques for high school choral groups.

365 Secondary School Vocal Techniques and Materials (3)

Prereq: 364. (spring) Continuation of 364. See 364 for description.

366 Teaching of Music in the Elementary Grades (3)

Prereq: 203, 205, 206, each with minimum grade of C. (fall) *J. Scholten*. Materials and methods for elementary music. For music majors only.

463 Scoring for Bands (3)

Prereq: 203, 304. (spring) *C. Minelli*. Writing techniques for marching and concert bands.

464 Marching Band Techniques (3)

Prereq: 304 or 305; sr rank. (winter) *T. Lee*. Techniques for preparation of high school and college marching band performance.

468 General Music in the Junior High School (3)

Prereq: 203, 205, 206, each with minimum grade of C; sr rank. (winter) *M. Wurtz*. Materials and methods; listening program; changing voice.

476A Music Clinic-Workshop (1-4)

Prereq: sr rank. (summer) May be repeated for credit, but credit may be applied to degree electives only once.

476B Elementary Music Workshop (1-4)

Prereq: sr rank. (summer) May be repeated for credit, but credit may be applied to degree electives only once.

476C Chamber Music Institute (1-4)

Prereq: sr rank. (summer)

121 Introduction to Baroque and Classic Music (2)

Prereq: 120 or perm, for nonmusic majors. (fall) *K. Ahrendt*. Selected works from music of Baroque and Classic periods.

122 Introduction to the Music of the Romantic Period (2)

Prereq: 120 or perm, for nonmusic majors. (winter) *K. Ahrendt*. Selected works from music of Romantic period.

123 Introduction to 20th Century Music (2)

Prereq: 120 or perm, for nonmusic majors. (spring) Selected works from music of 20th century.

321 History and Literature of Music (3)

Prereq: 103. *R. Wetzel*. History of music with survey of musical literature to 1450.

322 History and Literature of Music (3)

Prereq: 321. History of music with survey of musical literature, 1450-1720.

323 History and Literature of Music (3)

Prereq: 322. History of music with survey of musical literature, 1720 to present.

421A The Literature of Vocal Music (3)

Prereq: 323. (fall, 1973).

421B The Literature of Piano Music (3)

Prereq: 323. (winter, 1974).

421C The Literature of Chamber Music (3)

Prereq: 323. (spring, 1974).

421D The Literature of Orchestral Music (3)

Prereq: 323. (fall, 1972).

421E The Literature of Organ Music (3)

Prereq: 323. (winter, 1973).

421F The Literature of Opera (3)

Prereq: 323. (spring, 1973).

Music Theory and Composition

101 Music Theory (3)

Prereq: music theory placement examination; music majors only. *S. Kaneshige, J. Stewart*. Melodic, harmonic and rhythmic principles of music and its notation. 5 days per wk.

102 Music Theory (3)

Prereq: 101. Continuation of 101. See 101 for description.

Music History and Literature

120 Introduction to Music Literature (2)

Prereq: for nonmusic major. *K. Ahrendt, E. Wickstrom*. Development of listening skills for understanding elements of musical style in historical perspective and significance of music as a fine art.

103 Music Theory (3)

Prereq: 102. Continuation of 101 and 102. See 101 for description.

201 Harmony (3)

Prereq: music majors only, 103 (minimum grade of C). *D. Lewis, J. Stewart*. Harmonic and contrapuntal practices of 18th and 19th centuries, including analysis and composition in smaller forms.

202 Harmony (3)

Prereq: 201. Continuation of 201. See 201 for description.

203 Harmony (3)

Prereq: 202. Continuation of 201 and 202. See 201 for description.

204 Dictation and Sight Singing (3)

Prereq: music majors only, 103 (minimum grade of C or perm). *D. Lewis, S. Kaneshige*. Should be taken concurrently with 201.

205 Dictation and Sight Singing (3)

Prereq: 204. Continuation of 204. See 204 for description.

206 Analysis and Form (3)

Prereq: 202. (spring) *D. Lewis, S. Kaneshige*. Harmonic and structural analysis of larger forms. Should be taken concurrently with 203. 5 days per wk.

301 Advanced Harmony (3)

Prereq: 203, 205, 206 with minimum grade of C in each. *S. Hall*. 19th century chromatic harmony and 20th century harmonic practices.

302 Advanced Harmony (3)

Prereq: 301. Continuation of 301. See 301 for description.

303 Advanced Harmony (3)

Prereq: 302. Continuation of 301 and 302. See 301 for description.

304 Instrumentation (3)

Prereq: 203. (fall) *C. Minelli*. Technical characteristics of instruments of band and orchestra. Arranging for small ensembles.

305 Orchestration (3)

Prereq: 203. (winter) *K. Ahrendt*. Scoring for small, medium and full orchestra.

306 Orchestration (3)

Prereq: 305. (spring) Continuation of 305. See 305 for description.

310 Composition (2)

Prereq: 203, 205, 206. *K. Ahrendt*. Original writing in smaller forms.

311 Composition (2)

Prereq: 310. Continuation of 310. See 310 for description.

312 Composition (2)

Prereq: 311. Continuation of 310 and 311. See 310 for description.

401 Keyboard Harmony (3)

Prereq: 203. *R. Syracuse*. Concentration on functional aspects of piano playing: sight reading, accompanying, transposition, harmonization of melodies, improvisation, keyboard harmony.

407 Counterpoint I (2)

Prereq: 203, 205. (fall) *J. Stewart*. Based on practices and style of Palestrina.

408 Counterpoint II (2)

Prereq: 407. (winter) Continuation of 407. See 407 for description.

409 Counterpoint III (2)

Prereq: 203, 205. (spring) *J. Stewart*. Tonal counterpoint in 2, 3 and 4 voices; modern counterpoint.

410 Composition (2)

Prereq: 312. *K. Ahrendt*. Original writing in larger forms.

411 Composition (2)

Prereq: 410. Continuation of 410. See 410 for description.

412 Composition (2)

Prereq: 411. Continuation of 410 and 411. See 410 for description.

Music Therapy

281 Social and Recreational Instruments and Materials (3)

Prereq: 102 or perm. (fall, spring; spring, music majors only)

380 Clinical Experience I (1)

Prereq: perm; not open to fr. Selected field experience in approved hospitals.

381 Music Therapy I: Background of Music Therapy (3)

Prereq: 203, 205, 206. (fall) Historical review and survey of current trends of music therapy.

382 Music Therapy II: The Influence of Music on Behavior (3)

Prereq: 381, perm. (winter) Theoretical bases for influence of music on behavior.

Ohio Program of Intensive English

383 Music Therapy III: Problems and Procedures (3)

Prereq: 382, perm. (spring)

480 Clinical Experience II (1)

Prereq: Recommendation of adviser. Six months as full-time music therapy intern at approved hospital beginning after completion of sr yr in music therapy. Credit, without grade, upon satisfactory completion of internship.

481 Psychological Foundations of Music I (3)

Prereq: 203, 206, 9 hrs of psychology, perm. (winter) Nature and extent of psychological investigations bearing upon composition, performance and education in field of music.

482 Psychological Foundations of Music II (3)

Prereq: 481. (spring) Continuation of 481. See 481 for description.

Independent Studies in Music

498 Independent Projects (1-6)

Prereq: perm.

499 Independent Readings in Music (1-12)

Prereq: perm.

NURSING

Both the Zanesville and Portsmouth campuses of Ohio University offer two-year nursing programs. Students who complete the program will receive an associate in applied science degree in nursing and will be eligible to write the State Board Examination for Registered Nurse.

The Belmont County campus and the Ohio Valley Hospital School of Nursing, Steubenville, have a cooperative nursing program. The Belmont County campus provides the academic credit courses at the hospital that are required for the certificate program. The diploma is granted by the Ohio Valley Hospital School of Nursing.

The Belmont County Campus and the Ohio Valley Hospital School of Nursing program does not apply to the Ohio University Regional Campus ADN program.

101 Nursing I (5)

Understanding needs common to all patients and scientific principles involved in nursing care. Development of nursing skills and application of scientific principles through guided learning experience in the college nursing laboratory and care of selected patients in the clinical laboratory (community hospitals).

102 Nursing II (5)

Major nursing problems of individuals with medical and surgical illness. Emphasis on promotion and maintenance of health as well as preventive measures. Concurrent guided learning experience in community hospitals and health agencies.

103 Nursing III (5)

Continuation of 102. See 102 for description.

201 Nursing IV (6)

Family life cycle, including preparation for marriage, pregnancy, childbirth and child rearing. Emphasis on caring for well family, but consideration given to deviation from normal. Emphasis on prevention through individual as well as community activities.

202 Nursing V (6)

Continuation of 201. See 201 for description.

203 Nursing VI (6)

Major nursing care problems of individuals with mental illness. Emphasis on prevention as well as promotion of mental health for individual and through community activities. Concurrent guided learning experience in community hospitals and health agencies.

204 Nursing VII (6)

Complicated nursing care problems of individuals with medical and surgical illness. Concurrent opportunities to utilize nursing skills and to exercise appropriate judgment through guided learning experience in community hospitals and other community agencies.

205 Nursing VIII (9)

Continuation of 204. See 204 for description.

206 Nursing IX (3)

Exploration of concerns of nursing profession past, present and future. Relationships of technical nurse to health professions and community considered. Future personal development of individual technical nurse discussed.

OHIO PROGRAM OF INTENSIVE ENGLISH

See Linguistics

PHILOSOPHY

The major requirement for the AB degree consists of a minimum of 36 hours, including 310, 312, 320 and at least three courses numbered above 400. Philosophy majors may not count toward their major requirement more than 12 hours of credit in philosophy courses taken on a pass-fail basis.

101 Fundamentals of Philosophy (3)

Prereq: Not open to jrs and srs. Basic problems and concepts in philosophy.

102 Principles of Reasoning (3)

Prereq: Not open to jrs and srs. Use of evidence in establishing reliable conclusions.

103 Moral Philosophies (3)

Prereq: Not open to jrs and srs. Types of ethical theory, bases of moral decision and nature of values.

216 Philosophy of Science Survey (3)

M. Rubin. Nontechnical survey of types, testing and credibility of hypotheses; methods of experimental inquiry; measurement; laws, theories and their role in explanation, concept formation.

240 Social Philosophy (3)

E. Smith. Basic types of social and political philosophies, classical and modern.

250 Philosophy of Mind (3)

R. Trevas. Mind-body problem; concept of self; man-machine relation.

260 Philosophy of Religion (3)

S. Grean. Problems in nature of religion, existence and nature of God, problem of evil, immortality and religious language.

301 Introduction (3)

Prereq: Not open to those who have had 101. Analysis of typical philosophical problems arising in study of nature, society and religion for purpose of developing a thoughtful and consistent intellectual perspective.

310 History of Western Philosophy: Ancient (5)

T. Organ. Significant ideas of representative Greek and Roman philosophers.

311 History of Western Philosophy: Medieval and Renaissance (3)

J. Perotti. Augustine to Bruno and Campanella.

312 History of Western Philosophy: Descartes to Hume (5)

R. Wieman.

313 American Philosophy (3)

Prereq: 3 hrs above 200. *I. Murphree, M. Rubin.* Begins with transcendentalism and includes pragmatism, naturalism and idealism.

320 Symbolic Logic I (3)

R. Butrick. Techniques of modern symbolic logic.

330 Ethics (3)

Prereq: Not open to those who have had 103. *R. Saydah.* Comparison of theories of right and good which enter into contemporary thought.

350 Philosophy of Culture (3)

R. Saydah. Philosophical studies of man as a culture-creating being.

351 Philosophy of Language (3)

Prereq: 3 hrs. *E. Smith.* Theories of meaning and reference and their philosophical significance, relations of meaning to verification and truth and relationship between language and concepts.

358 Existentialism (3)

Prereq: 9 hrs. *D. Stewart.* Historical roots of existentialism. Revolt against system, existence, freedom, despair, authenticity, alienation and death, especially in Kierkegaard, Dostoyevsky and Berdyaev.

361 Old Testament (5)

D. Borchert. Background and development of Old Testament; its philosophical, moral and religious significance.

362 New Testament (5)

D. Borchert. Background and development of New Testament; philosophical, moral and religious significance of beliefs of Jesus, Paul and the early Church.

370 History of Religions: India (3)

G. Weckman. Vedic religion, Hinduism, Jainism.

371 History of Religions: Southeast Asia, China and Japan (3)

H. Cheng. Buddhism, Taoism, Confucianism, Shinto.

372 History of Religions: Near East (3)

G. Weckman. Zoroastrianism, Judaism, Christianity, Islam.

414 Analytic Philosophy (3)

Prereq: 12 hrs. *E. Smith.* Selected topics in contemporary Anglo-American philosophy from Moore to Wisdom.

415 Contemporary Philosophical Problems (5)

Prereq: 2 courses above 400. Issues from current journal literature.

416 Philosophy of Science (3)

Prereq: 216 and 320. *W. Ruchti*. Selected problems in logic and methodology of sciences.

418 Plato (3)

Prereq: 12 hrs, including 310. *R. Wieman*.

419 Aristotle (3)

Prereq: 12 hrs, including 310. *T. Organ*.

420 Symbolic Logic II (3)

Prereq: 320. *R. Butrick*. Informal and formal deductive systems, logic of relations, class logic.

421 Proof Theory (3)

Prereq: 420 or 3 hrs mathematics beyond 2nd yr calculus. *R. Butrick, W. Ruchti*. (offered on demand) Syntax and semantics of formal theories.

422 Computability (3)

R. Butrick, W. Ruchti. (offered on demand) Algorithms, recursive functions, Turing machines, decidability.

423 Modal and Many Valued Logics (3)

Prereq: 320. *M. Corrado*. (offered on demand) N-valued logics, modal logic.

424 Foundation Theory (3)

Prereq: 420 or 3 hrs mathematics beyond 2nd yr calculus. *R. Butrick, W. Ruchti*. (offered on demand) Alternative bases for developing formal theories.

428 Continental Rationalism (3)

Prereq: 12 hrs, including 312. *R. Trevas*. Descartes, Spinoza, Leibniz.

429 British Empiricism (3)

Prereq: 12 hrs, including 312. *R. Trevas*. Locke, Berkeley, Hume.

430 Contemporary Ethical Theory (3)

Prereq: 12 hrs, including 103 or 330. *R. Saydah*. Significant current literature in selected topics of moral philosophy.

431 History of Esthetic Theory (3)

Prereq: 12 hrs. Readings from Plato to Dewey and relation of these theories to selected arts and recent criticism.

432 Problems in Esthetics (3)

Prereq: 9 hrs philosophy, literature or art. For students interested in the arts but not necessarily in issues primarily of interest to

philosophers. Writings drawn from modern sources on theory of art, esthetic criticism, creativity, truth in art, esthetic value.

438 Kant (3)

Prereq: 12 hrs including 312. *D. Stewart*. Kant's *Critique of Pure Reason* with attention given to Kant's ethical theory.

439 19th Century European Philosophy (3)

Prereq: 12 hrs. *A. Mickunas*. Subjects selected from French, German and British philosophers of 19th century.

440 Contemporary Social Philosophy (3)

Prereq: 12 hrs, or 6 hrs and 9 hrs of social science. *I. Murphree*.

442 Philosophy of Law (3)

Prereq: 12 hrs or perm. *R. Saydah, E. Smith*. Philosophical analysis of nature and justification of legal systems including examination of concepts of just laws and just legal systems.

444 Philosophy of Marxism (3)

Prereq: 12 hrs. *D. Borchert*. Philosophical inquiry into classical and contemporary Marxist thought stressing Marx, Engels, Lenin, Stalin, Mao and several contemporary Marxists such as the "Praxis group" of Yugoslavia.

448 Pragmatism (3)

Prereq: 12 hrs. *I. Murphree, M. Rubin*. Peirce, James, Dewey.

450 Theory of Knowledge (3)

Prereq: 12 hrs, including 312. *D. Lincicome*. Critical examination of various views of what knowledge is and how it is attained.

451 Metaphysics (3)

Prereq: 12 hrs, including 310 or 312. *M. Corrado*. Basic alternative conceptions of world, and such topics as nature of substance, causality, self, freedom, space and time.

452 Myth and Symbolism (3)

Prereq: 12 hrs. *G. Weckman*. Characteristic expressions of thought in primitive societies and theories concerning primitive mentality.

458 Contemporary German Philosophy (3)

Prereq: 12 hrs, including 358 and 468. *A. Mickunas*. (alternate years.) Analysis of themes in Husserl, Heidegger, Scheler, Hartman, Dilthey, Cassirer, Gebser and Ingarden, stressing phenomenological roots as well as new philosophic directions.

459 Contemporary French Philosophy (3)

Prereq: 12 hrs, including 358 and 468. *D. Stewart*. (alternate years) Trends in contemporary French philosophy, stressing Sartre,

Camus, Marcel Merleau-Ponty and Ricoeur, emphasizing existential backgrounds of French thought and its adaptation of existential themes.

460 Contemporary Religious Thought (3)

Prereq: 12 hrs. *S. Grean*. Representative thinkers such as Tillich, Buber and others.

468 Phenomenology (3)

Prereq: 12 hrs, including 312. *A. Mickunas*. Method and philosophy of phenomenological movement from Husserl to Merleau-Ponty.

470 Indian Philosophy (3)

Prereq: 12 hrs, including 370. *T. Organ*. Classical Hinduism.

471 Buddhist Philosophy (3)

Prereq: 12 hrs, including 371. *H. Cheng*. Abhidharma, Madhyamika, Yogacara, Zen and other philosophical doctrines of Buddhism.

491 Seminar in Philosophy (1-15)

Prereq: 21 hrs. Selected problems.

PHOTOGRAPHY

See Art, Photography

PHYSICS

Physical Science

Physics

The minimum requirement for the AB degree with a major in physics is 36 quarter hours, including a sequence of beginning courses through 253 or 305 and 306. This curriculum can be useful for secondary school science teachers. A student interested in teaching physics at the secondary level should also consult the physics major program listed under the secondary education programs of the College of Education.

The minimum requirement for the BS degree with a major in physics is 54 quarter hours. This must include a sequence of beginning courses through 253 or 305; 306; 311-312; 321-322; 9 hours of courses numbered above 400, and 6 hours of laboratory courses above 400. Extra departmental recommendations include 6 hours of mathematics courses numbered above 300, including vector analysis, and a year of chemistry.

Students preparing for careers in physics in industrial, atomic energy, space science or government laboratories or those who plan to enter graduate study will find a recommended

physics major curriculum listed under College of Arts and Sciences. An applied or engineering physics program is also listed under College of Arts and Sciences. Students planning to enter graduate study are urged to acquire a reading knowledge of one modern language such as German, French or Russian. For English composition requirements, see the College of Arts and Sciences section.

Completion of the requirements for either the AB or BS degree program above completes the Arts and Sciences College requirement of at least 9 hours in the major at the junior-senior level.

Physical Science

100 Science and Society (4)

Investigations of nature of science and its methods in obtaining knowledge and laws of our total environment. Seeks an understanding of basic nature of science and builds comprehension of how science is relevant to man and society. 3 lec, 1 discussion.

101 Physical World (4)

Designed for nonscience majors. Fundamental ideas of measurement, motion, energy, sound, light, electricity and magnetism and astronomy. Topics in astronomy include solar system, time, moon phases, tides, eclipses, sun and galaxies. 3 lec, 2 lab.

102 Physical World (3)

Prereq: 101 or equiv. Designed for nonscience majors. Fundamental ideas of heat, nuclear physics, atomic physics and chemistry. Topics in chemistry include classification of elements, molecules, chemical reactions, solutions and large molecules, including plastics and DNA. 2 lec, 2 lab.

103 Physical World (3)

Prereq: 101 or equiv. Designed for nonscience majors. Fundamental ideas of meteorology and geology. Topics in meteorology include atmosphere, winds, clouds, storms and weather. Topics in geology include rocks and minerals, gradation, earthquakes, continental drift and the ocean. 2 lec, 2 lab.

H197 Physical World (4)

Prereq: 589 SAT V and Q. (fall) Designed for nonscience majors. See 101 for course description. 3 lec, 2 lab.

H198 Physical World (3)

Prereq: 589 SAT V and Q. (winter) Designed for nonscience majors. See 102 for course description. 2 lec, 2 lab.

Physics

H199 Physical World (3)

Prereq: 589 SAT V and Q. (spring) Designed for nonscience majors. See 103 for course description. 2 lec, 2 lab.

211 The Universe (3)

Prereq: 6 hrs of any physical science or perm. Designed for nonscience majors. Descriptive study of astrophysical universe. Fundamental physical principles, evolution of stars, pulsars, quasars, and recent theories of cosmology. Other possible topics include astrology, UFOs, U.S. space program and possibility of extra-terrestrial life. 3 lec.

Physics

201 Introduction to Physics (4)

(fall, winter) 1st course in physics; open to students from all areas. Calculus not required. Recommended for students in liberal arts, architecture, industrial technology, botany, geology and premedicine. Lec with demonstrations and lab. Mechanics of solids and liquids, heat and thermodynamics. 3 lec, 2 lab.

202 Introduction to Physics (4)

Prereq: 201. (winter, spring) Continuation of 201. Open to students from all areas. Calculus not required. Recommended for students in liberal arts, architecture, industrial technology, botany, geology and premedicine. Lec with demonstrations and lab. Includes electricity, magnetism, waves, sound and light. 3 lec, 2 lab.

203 Introduction to Physics (4)

Prereq: 202. (spring, fall) Continuation of 202. Open to students from all areas. Calculus not required. Recommended for students in liberal arts, architecture, industrial technology, botany, geology and premedicine. Lec with demonstrations and lab. Includes relativity, quantum, atomic and nuclear physics. 3 lec, 2 lab.

211 The Universe (3)

See PSc 211.

251 General Physics (5)

Prereq: Math 263A. Classical and modern physics with calculus and vectors. Newtonian and relativistic mechanics of solids and fluids. 3 lec, 2 lab, 1 recit.

252 General Physics (5)

Prereq: 251 and Math 263B. Classical and modern physics with calculus and vectors. Heat and thermodynamics, electricity and magnetism. 3 lec, 2 lab, 1 recit.

253 General Physics (5)

Prereq: 252. Classical and modern physics with calculus and vectors. Waves (electromagnetic and mechanical), quantum physics, particles, nuclei, atoms and molecules. 3 lec, 2 lab, 1 recit.

254 General Physics for Electrical Engineers (5)

Prereq: 251, Math 263B, electrical engineering students only. (winter) Classical and modern physics with calculus and vectors: thermal properties of matter, thermodynamics, forces on electric charges, wave phenomena, optics, quantum phenomena, atoms, molecules, spectra, nuclei, high energy particle physics. 3 lec, 2 lab, 1 recit.

305 Intermediate Physics (3)

Prereq: 201, 202, 203, Math 263A. (winter) Preparation for 300 courses for students without credit for 251-252-253. Selected topics in introductory physics presented with calculus and vectors. 3 lec.

306 Intermediate Laboratory (2)

(winter, spring) Fundamental experiments in quantum physics. 4 lab.

311 Mechanics (4)

Prereq: 253 or 305; Math 340 or with Math 340. (fall) Fundamentals of physical mechanics and wave motion, using vector analysis and differential equations. Newton's laws, equilibrium, harmonic and central force motion of particles. 3 lec.

312 Mechanics (4)

Prereq: 311. (winter) Fundamentals of physical mechanics and wave motion, using vector analysis and differential equations. Accelerated reference frames, rigid body motion, wave motion in linear systems. 3 lec.

313 Digital Computing Methods in Physics (3)

Prereq: jr rank in physics. (spring) Practical computer programming (FORTRAN, etc.) with special emphasis on problems in physics. 3 lec.

316 Contemporary Physics for Engineers (3)

Prereq: 253 or 254 and Math 263C. Qualitative ideas and quantitative results of atomic and nuclear physics. 2 great successful theories of 20th century physics, quantum theory and relativity, presented with use of elementary calculus. 3 lec.

321 Electricity and Magnetism (4)

Prereq: 253 or 305; Math 340 or with Math 340. (fall) Circuits, electric and magnetic fields. Topics on field sources, potentials, Gauss's law, polarization and dielectrics, magnetic induction, Hall effect. 3 lec.

322 Electricity and Magnetism (4)

Prereq: 321. (winter) Electric and magnetic fields. Topics on magnetic potentials, magnetic forces, Faraday law, magnetic materials, capacitance and inductance, energy of charge and current distributions, time-varying current. 3 lec.

323 Optics (3)

Prereq: 322. (spring) Geometrical and physical optics. Reflection, refraction, lenses, simple aberrations; interference phenomena, scalar diffraction theory; coherence; double refraction, and selected introductory topics in modern optical techniques. 3 lec.

325 Relativity (2)

Prereq: 311 or 321. (spring) Special relativity and Lorentz transformations with applications to selected topics in mechanics, electricity and magnetism and particle physics. 2 lec.

411 Thermodynamics (4)

Prereq: 253 or 305, Math 340. (fall) First and second laws of thermodynamics, phase changes and entropy. Temperature, thermodynamic variables, equations of state, heat engine. 3 lec.

412 Kinetic Theory and Statistical Mechanics (4)

Prereq: 411. (winter) Kinetic theory, transport phenomena and introduction to classical and quantum statistics. 3 lec.

420 Acoustics (3)

Prereq: 311 or 321, Math 340. (spring) Vibration, sound radiation, sound propagation and practical aspects of sound. 3 lec.

421 Optics Laboratory (2)

Prereq: 323. (fall) Experiments in geometrical and physical optics including laser experiments. 4 lab.

422 Spectroscopy Laboratory (2)

Prereq: 312 or 322. (winter) Optical and radiofrequency spectroscopy: measurements of energy levels and quantum numbers of physical systems. Absorption and fluorescence, Zeeman effect, Faraday rotation, nuclear magnetic resonance, electron spin resonance. 4 lab.

431 Basic Electrical Measurements Laboratory (3)

Prereq: 253 or 305. (fall) Electrical and electronic measurements and techniques including some basic circuit analysis and amplification techniques. 6 lab.

432 Electronics Laboratory (2)

Prereq: 253 or 305, 431 or perm. (winter) Basic semi-conducting devices, transistors, integrated circuits and their application. 4 lab.

433 Electronics Laboratory (2)

Prereq: 253 or 305, 431 or perm. (spring) Basic instrumentation from dc to microwaves; analog and digital devices. 4 lab.

441 Atomic and Nuclear Laboratory (2)

Prereq: 253 or 305. (fall) X-ray diffraction, polarization and absorption. Measurement of Planck's constant, crystal analysis and other experiments. 4 lab.

442 Atomic and Nuclear Laboratory (2)

Prereq: 253 or 305. (winter) Particle and radiation detectors, Moseley's law, lifetime of mu-meson, neutron activation and half-life determination. 4 lab.

443 Atomic and Nuclear Laboratory (2)

Prereq: 253 or 305. (spring) Magnetic beta-ray spectra, coincidence analysis and angular distribution. 4 lab.

445 Neutron Laboratory (2)

Prereq: 18 hrs over 300. (fall) Selected experiments on neutron interaction with nuclei and with bulk matter. 4 lab.

446 Neutron Laboratory (2)

Prereq: 18 hrs over 300. (winter) Selected experiments on neutron interactions with nuclei and with bulk matter. 4 lab.

451 Quantum Physics (4)

Prereq: 311 or 321 or perm. (fall) Quantum effects in atomic and molecular physics; basic ideas of quantum mechanics; solutions to Schrodinger equation for simple systems. 3 lec.

452 Quantum Physics (4)

Prereq: 451. (winter) Quantum effects in atomic and molecular physics; application of quantum mechanics of interpretation of atomic and molecular spectra and structure. 3 lec.

453 Nuclear and Particle Physics (4)

Prereq: 451. (spring) Descriptive treatment of nuclear phenomena. Elementary theory of nucleon-nucleon interaction. Systematics of nuclear structure (shell model and collective

Psychology

model). Properties and interactions of fundamental particles. Devices and techniques of nuclear and high energy physics. 4 lec.

461 Theoretical Classical Physics (4)

Prereq: 312 and 322. (fall) Advanced topics in mechanics, electricity and magnetism; Lagrange and Hamiltonian methods; Maxwell's equations and electromagnetic radiation. 4 lec.

470 Special Problems (1-4)

Prereq: 22 hrs. Supervised research problems of limited scope in experimental and theoretical physics.

471 Solid State Physics (4)

Prereq: 452, 412. (spring) Fundamental properties of solid state of matter. 4 lec.

493 Undergraduate Seminar (1)

Prereq: jr rank. Important areas of current interest in field of physics, the history of physics, development of ideas in physics and other aspects of physics.

PORTUGUESE

See Foreign Languages and Literatures

PSYCHOLOGY

The major in psychology consists of a minimum of eight psychology courses and a total of 45 quarter hours. Psychology 101 and 321 are required. In addition, a minimum of two courses from each of the following three areas is required: (a) Developmental-Educational: 103, 373, 375, 404, 475, 490A-E, 490G. (b) General-Experimental: 326, 390, 401, 403, 407, 412, 414, 448, 490A, 490J. (c) Personality-Social: 131, 341, 361, 410, 415, 432, 433, 436, 451, 490A, 490F. Five credits for appropriate on-the-job training related to psychology may be obtained by registering for Psy 490A with the permission of a psychology faculty member; forms supplied by the department must be submitted by the student's employer, and the credit in 490A must be approved by the student's adviser.

Students who are considering graduate work in psychology are encouraged to give special consideration to the following courses: 326, 341, 390, 401, 403 or 404, 407, 410, 412, 414, 415, 432, 433, 436 and 475.

No psychology courses taken on a Pass/Fail basis may be applied toward fulfilling requirements for the psychology major or for professional certification in any field.

The Department of Psychology offers a master's degree in school psychology which is approved by the Ohio State Department of Education and prepares a student for certification as a school psychologist. Recent changes in the laws governing teacher education and certification provide an alternative program of undergraduate preparation to qualify the student for admission to the graduate program in school psychology. Course work in six education areas (including educational psychology) may be substituted for the teacher's certificate requirement. For further information contact the Coordinator for School Psychology, Department of Psychology, Porter Hall.

Total hours for a major in psychology may not exceed 60 quarter hours. Preparation in a diversity of fields is recommended: modern languages, biological sciences, mathematics, computer science and the social sciences.

Students may receive minor certification to teach social psychology at the secondary school level by meeting the following requirements: (1) completing certification requirements in a major teaching field (for complete specification of these fields contact the College of Education) and (2) completing the following courses in psychology: 321, 326, 404, 433, 436 and five hours from among 410, 490B, 490C, 490D, 490E, 490F.

101 General Psychology (5)

Introduction to psychology dealing primarily with learning, motivation and sensory processes.

103 Applications of Psychology (4)

Prereq: 101. Development of personality and abilities, individual differences and applications of psychology in business, industry and mental health areas.

131 Psychology of Adjustment (4)

Prereq: 101. Dynamics, development and problems of human adjustment.

321 Elementary Statistics for the Behavioral Sciences (5)

Prereq: 101 and Math 113 with minimum grade of C, or 3 yrs h.s. mathematics. Measures of central tendency, variability, correlation and simplest tests of hypotheses.

326 Experimental Psychology (5)

Prereq: 321. Training in scientific methods and techniques of modern experimental psychology with individual reports of experiments. 2 lec, 4 lab.

341 Behavioral Measurement (5)

Prereq: 321. Testing and measurement; basic criteria including objectivity, reliability, validity. Methods of test construction and validation, including questionnaire construction.

361 Public-Service Research (5)

Prereq: 101. Applications of psychology in business and industry.

373 Child and Adolescent Psychology (5)

Prereq: 101, not for students with EdEl 200. Behavior from infancy through adolescence.

375 Educational Psychology (5)

Prereq: 101, not open to fr. Psychological foundations of education, with major emphasis upon learning, transfer, motivation and evaluation.

390 Research in Psychology (1-5, max 15)

Prereq: 326, written perm. Supervised independent research on predefined problem.

H397 Psychology for Honors College (1-5, max 15)

Prereq: admission to Honors College.

401 Experimental Sensory Psychology (5)

Prereq: 326 or 412. Sensory processes, including vision, audition, gustation, olfaction and somesthesia. 2 lec, 3 lab.

403 Learning (5)

Prereq: 9 hrs, perm. Experimental investigation of classical and instrumental conditioning, discrimination learning, generalization, related phenomena.

404 Human Learning (5)

Prereq: 326 or perm. Theoretical and experimental investigations of learning in human beings; concept learning, problem solving, memory, motor skills and language.

407 Psycholinguistics (4)

Prereq: perm. How people produce, understand and acquire language; psychological and linguistic theories. Emphasis on the user of language.

410 Motivation (5)

Prereq: 9 hrs. Scientific study of principles of human action with emphasis on motive, emotion and habit.

412 Physiological Psychology (5)

Prereq: 326. Relationships between integrated behavior and bodily processes in the intact organism.

414 Comparative Psychology (5)

Prereq: 326, perm. Behavior of lower and higher organisms leading up to man. Lec and lab.

415 Psychology of Human Differences (5)

Prereq: 9 hrs including 341 or equiv, jr or sr rank. Extensive survey of quantitative studies dealing with methodology, basic principles and general findings in individual differences in intelligence, personality, interest and perception; group differences of sex, race, class and age.

432 Abnormal Psychology (5)

Prereq: 9 hrs, jr or sr rank. Behavior disorders, their cause and effects on person, family and society.

433 Psychology of Personality (5)

Prereq: 9 hrs, jr or sr rank. Development and organization of personality, with evaluation of major theoretical viewpoints; research on personality structure, dynamics and change.

436 Social Psychology (5)

Prereq: 9 hrs. Behavior of man as influenced by group membership, with emphasis on individual's interaction as basis of change of motives, attitudes and personality.

448 Psychology of Speech (4)

See InCo 452.

451 Introduction to Clinical and Counseling Psychology (5)

Prereq: 432 or 433, jr or sr rank. Diagnostic and remedial procedures and resources; professional problems, duties, skills and inter-professional relationships.

475 Psychology of Exceptional Children (5)

Prereq: 9 hrs including 373 or EdEl 271, jr or sr rank. Not open to those having EDSP 371. Characteristics and problems of exceptional individuals; mentally retarded, mentally superior, highly creative, sensory-handicapped, culturally disadvantaged and emotionally disturbed.

490A Special Problems in Psychology (1-15)

Prereq: written perm. Independent work on special problem with any psychology professor.

490B Special Problems—Cognitive-Intellectual Development (3)

Prereq: 373, perm. Concepts, research findings and theories of cognitive development; development of memory processes, thinking, intelligence and language.

**490C Special Problems—
Social-Emotional Development (3)**

Prereq: 373. Socialization from theoretical and practical viewpoints; influences of social agencies and peers. Integrates relevant research findings on minority groups.

**490D Special Problems—
Phylogenetic Development (3)**

Prereq: 373, 15 hrs biological or zoological science, jr or sr rank, perm. Evolutionary and hereditary bases of human behavior; embryonic and early experience factors relating to behavior development; theoretical issues and research designs.

**490E Special Problems—
Personality Development (3)**

Prereq: 373. Developmental processes as they relate to personality. Major concepts, research findings and theories of personality development.

**490F Special Problems—
Experimental-Social (3)**

Prereq: 436 and perm. Advanced methodological and theoretical approaches to selected topics in experimental-social psychology.

**490G Special Problems—Teaching of
Psychology in Secondary Schools (3)**

Prereq: 25 hrs of psychology in the Teaching of Psychology Program, including 375. Effective methods of instruction and evaluation at the high school level. Does not apply to the major, social sciences or Arts and Sciences 200-level requirement.

**490J Special Problems—Psychophysiology
(5)**

Prereq: perm. Relationships between physiological and behavioral events in humans.

**490L Special Problems—Public Service
Research (1-15)**

Prereq: perm.

490X Special Problems—Psychology (1-15)

Prereq: Study abroad.

**H491 Readings in Honors Work
(1-4, max 10)**

Prereq: perm.

**H497 Honors Work in Psychology
(1-4, max 10)**

Prereq: perm.

**H499 Honors Work in Psychology (Thesis)
(3-7, max 15)**

Prereq: perm.

QUANTITATIVE METHODS

The quantitative methods major allows for flexibility in designing a program to suit the student's wishes.

In addition to the BBA degree requirements, a student majoring in quantitative methods must complete 24 hours of 400 level quantitative methods courses. At least one four-hour course shall be in each of the following areas: data processing, operations research and statistics. The other 12 hours, subject to an adviser's approval, may be elected to gain depth in one of these three areas.

**200 Introduction to Business Data
Processing (4)**

Role of computer in a business environment. Study of equipment, applications and flow-charting.

**201 Introduction to Probabilities and
Statistics (4)**

Prereq: Math 163 sequence, 200. Sets, permutations, combinations. Probability: random variables, axioms, relative frequency, discrete and continuous cases.

354 Introduction to Probability Theory (4)

Prereq: Math 163 sequence. Sets, permutations, combinations. Probability: random variables, axioms, relative frequency, discrete and continuous cases, multidimensional functions, independent and conditional probabilities, moments, law of large numbers, central limit theorem, binomial, normal, Poisson and rectangular distributions.

355 Introduction to Statistical Inference (3)

Prereq: 201. Statistics: sampling, estimation (point and interval), tests of hypotheses, correlation.

401 Operations Research (4)

Prereq: 201. Applications of operations research techniques (queuing, network analysis, PERT, linear programming, Markov analysis, simulation, etc.) to improve performance of organizations.

403 Statistical Quality Control (4)

Prereq: 201. Application of sampling theory to quality control: in process control (i.e. control charts) and sampling inspection (i.e. attribute and variable).

420 FORTRAN Programming (4)

Prereq: 200. Use of computer in organizations to store, process and deliver data using FORTRAN language to solve business problems. (Formerly QM 370)

425 Advanced FORTRAN (4)

Prereq: 420 or equiv. Deals with application of FORTRAN programming language to problems in marketing, finance, management, accounting and economics.

430 COBOL Programming (4)

Prereq: 200. Introduction to business-oriented computer language COBOL.

434 Design of Experiments (4)

Prereq: 456 or perm. Nested, split plot; replicated designs; multi-factor experiments; compounding; fractional factorials; analysis of covariance.

435 Advanced COBOL (4)

Prereq: 430. Deals with application of COBOL programming language to problems in marketing, finance, management, accounting and economics.

438 Nonparametric Statistics (4)

Prereq: 456 or equiv. Appropriate statistical tests; power; asymptotic efficiency; parametric vs. nonparametric; Fisher's randomization method; run test; multi-sample tests; one-way ANOVA and two-way ANOVA; miscellaneous tests.

441 Multivariate Analysis (4)

Prereq: 434 or equiv. Multivariate normal distribution, chi square and T-tests, discriminant function, principle components, analysis of covariance, applications.

445 Forecasting Business Trends

Prereq: 201 or perm. Forecasting techniques and methodologies considered as tools decision-makers use to provide a basis for determining nature of future environments in which business will have to operate. Forecasting is the means for integrating total corporate planning with technical marketing and financial planning.

450 Sequential Analysis (4)

Prereq: 201 or equiv. Theory of Wald's sequential probability ratio test, problems of composite hypotheses, Barnard sequential t-test, sequential interval estimation, applications of general sequential theory to special problems.

451 Statistical Survey Techniques (4)

Prereq: 201 or equiv. Techniques of small sample tests applied in opinion polling, business, economics and government.

454 Intermediate Probability Theory (4)

Prereq: 201 or equiv. Random variables — moment generating functions and expected multidimensional (continuous and discrete), values, limiting theorems.

455 Sampling Theory (4)

Prereq: 454. Estimation, tests of hypotheses, sampling, analysis of variance, design of experiments.

456 Regression Analysis (4)

Prereq: 455. Time series analysis, game theory, regression and correlation analysis, and introduction to decision making.

460 Classical Decision Theory (4)

Prereq: 201 or equiv. Game theory, uncertainty due to ignorance of states of nature, utility and strategies.

461 Bayesian Statistics (4)

Prereq: 454. Probability and statistics taught from Bayesian point of view.

462 Bayesian Decision Theory (4)

Prereq: 461. Probability as measure of degree of belief, Bayesian decision criterion, Markov processes, decision trees and value of information.

480 Program Planning and Budgeting (4)

Prereq: 401 or perm. General discussion of architecture of computer and its auxiliary storage devices; data set organizations; real time; time sharing; assembly languages; compiler programs.

485 Simulation (4)

Prereq: 401 or perm. Models of physical systems are constructed and manipulated by computer with application to marketing, finance and management situations.

490 Systems and Procedures (4)

Prereq: 420, 430 or perm. Study of detailed methods for collecting, organizing and evaluating information to improve operations of an organization.

491 Seminar (3, 4 or 5)

Prereq: perm. Selected topics of current interest in quantitative methods area.

493 Readings (1-15)

Prereq: perm. Readings in selected fields of quantitative methods. Topics selected by student in consultation with faculty member.

495 Research (3, 4 or 5)

Prereq: perm. Methodology, analysis of data and preparation of research findings.

497 Independent Research (1-15)

Prereq: perm. Research in selected fields of quantitative methods under direction of faculty member.

RADIO-TELEVISION

105 Introduction to Mass Communication (4)

Development, structure, functions, processes, control and effects of mass media. 4 lec. Identical to Jour 105 and InCo 105.

106 Introduction to Radio-Television (4)

Organization, structure and function of broadcasting as a medium of mass communication. 4 lec.

121 Radio Performance (4)

Responsibilities and skills required of radio performer; practice in performance techniques for radio. 2 lec, 4 lab.

208 Technical Bases of Radio-Television (4)

Principles of electronic reproduction of sound and pictures; characteristics and functions of basic electronic equipment.

310 Principles of Television Production (4)

(fall) Production aspects of television and general principles of equipment operation and crew responsibilities. 2 lec, 4 lab. Not open to radio-television undergraduate majors for credit.

311 Elements of Radio Production (4)

Prereq: soph rank. Basic elements involved in writing, producing and directing a radio program. 2 lec, 4 lab.

316 Elements of Television Production (4)

Prereq: soph rank. Basic elements involved in writing, producing and directing a television program. 2 lec, 4 lab.

322 Television Performance (4)

Prereq: 121. Advanced exercises in television performance stressing special problems of video performer. 2 lec, 4 lab.

330 Continuity Writing (4)

Writing for broadcasting, stressing commercial and noncommercial program continuity and announcements, promotional and public service campaigns. 4 lec.

370 Broadcasting and the Public (4)

Interrelationships between broadcaster, government and public; bases for evaluation of role and significance of broadcasting in society. 4 lec.

405 Research Internship (9)

Prereq: acceptance by competition only. Opportunity for students to implement and complete major research study under supervision.

413 Advanced Radio Production-Direction (4)

Prereq: 311. Investigation of special problems in program development for radio. 2 lec, 4 lab.

417 Television Production-Direction (4)

Prereq: 316. (fall) Analysis of theory and techniques of direction for television. Practice with creative program formats. 2 lec, 4 lab.

418 Advanced Television Production-Direction (4)

Prereq: perm. (winter) Individual and group projects in development (first course) and production (second course) of a television program or series, stressing experimental techniques.

419 Advanced Television Production-Direction (2)

Prereq: 418. (spring) Continuation of 418. See 418 for description.

431 Dramatic and Documentary Writing (4)

Writing and critique of form, structure and presentation of both dramatic and non-dramatic programs and series. 4 lec.

432 Advanced Dramatic and Documentary Writing (4)

Prereq: perm of instructor. Advanced writing course in which experienced student creates substantive scripts in documentary and dramatic areas.

440 Radio and Television in Education (4)

Summary, analysis, application and evaluation of TV and radio in teaching-learning process. 4 lec.

441 Instructional Methods in Educational Radio-Television (4)

Practical applications of television in public school classrooms. Utilization of television programs as an adjunct to instruction. Preparation of instructional units for telecasting. 2 lec, 4 lab.

450 Broadcast Economics (4)

Economic structure of broadcasting industry, economies of its units and its economic relationships with other industries; case studies in budget planning and cost control. 4 lec.

451 Broadcast Management (4)

Functions, structure and organization of broadcasting stations; case studies relating to problems of personnel, sales, programming and management. 4 lec.

452 TV Newsfilm Production and Editing (3)

Prereq: perm. Principles and practices of TV newsfilm production and editing. Identical to Jour 452.

453 Broadcasting Law and Regulations (4)
Socio-political control of broadcasting, effect of laws, regulations and public pressures upon programming policies. 4 lec.

455 Broadcast Programming (4)

Programming concepts, resources, costs, selection and scheduling. Analysis of program in terms of unit structure, appeals and strengths. 4 lec.

457 Broadcast Sales and Sales Management (4)

Problems and practices of television and radio sales and sales management including case studies in sales development, pricing, promotion and other special problem areas. 4 lec.

459 Audience Research (4)

Various methods, techniques and applications of audience study in broadcasting; includes a study of current rating services. 4 lec.

467 Comparative Systems of Broadcasting (4)

(spring) Broadcasting systems of other countries in terms of relevant political, social, economic and cultural influences. 4 lec.

479 History of Broadcasting (4)

Origin of systems of radio and television communication and their development to present. 4 lec.

480 History of Broadcast Programming (4)

Prereq: 479. (winter) Origin and development of radio and television program types and formats.

490 Internship in Broadcasting (12)

Prereq: jrs and srs only, perm. Broadcast industry operation under auspices of a co-operating organization. Concurrent registration in 498 required for grade.

498 Special Problems (1-4, max 12)

Prereq: written proposal and perm. Not open to graduate students.

499 Independent Readings in Radio-Television (1-4, max 12)

Prereq: written proposal and perm. Not open to graduate students.

REGIONAL PLANNING

471 Seminar in Land Use Planning (3)

Prereq: perm. Concept of urban and regional spatial structure (land use); examination of land development processes; examination of methods and techniques of land development plans and policies.

472 Seminar in Land Use Planning (3)

Prereq: 471. (winter) Continuation of 471. See 471 for description.

474 Seminar in Planning Theory (3)

Prereq: perm. Urban settlement, its structure, population and economy and review of some approaches to planning modern cities.

475 Seminar in Planning Theory (3)

Prereq: 474. Continuation of 474. See 474 for description.

RESERVE OFFICERS TRAINING

See Aerospace Studies or Military Science

RUSSIAN

See Foreign Languages and Literatures

SOCIAL WORK

The Department of Social Work offers a flexible interdisciplinary curriculum designed to meet the requirements of students desiring to pursue an academic or professional career in some area of social work. This includes not only the established social services but also the newer programs concerned with social change and social policy. Students completing the program will receive a BA degree with a major in social work.

The goal of the curriculum is to develop students capable of using themselves in creative and purposeful ways to combat the manifold and serious social problems that confront our society and its members. Students have

considerable latitude in selecting sequences of courses related to their own needs and goals; however, students anticipating this major should consult with a member of the department as soon as possible to plan a program which will meet all degree requirements.

Ohio University is a constituent member of the Council on Social Work Education, and our graduates are qualified for full membership in the National Association of Social Workers.

The requirements for a major in social work consist of: a minimum of 28 hours of courses in social work including eight hours of field experience; specific courses in the social sciences (Soc 101, 360, 351; Psy 101; Govt 101 and 102; Econ 101; Anth 270); and Zool 103 and Psy 321 to fulfill part of the natural science requirement; 30 additional hours of social sciences with a minimum of 15 hours in one social science. (Also four courses of those fulfilling the 30 required hours are to be above 400); a list of courses in other departments that are particularly relevant to social work may be secured from the Department of Social Work in Gordy Hall; Spanish is recommended for fulfilling the language requirement.

101 Introduction to Social Welfare and Social Work (3)

Introductory examination of social welfare system and profession of social work with particular attention given to occupational roles, methods of social work practice, current research and evolving philosophy.

390 Social Security System (4)

Programs, policies and problems related to prevention and alleviation of economic insecurity in the United States. Special emphasis is placed on social insurance and public assistance programs with evaluation of proposals for change.

391 The American Social Welfare Institution (4)

Prereq: Soc 101 or 301, and 360; 390 recommended. Nature of social welfare as a social institution, stressing scope of social welfare activity; historical development; value orientation; response to critical social problems, issues in social policy and emergence of social work as a profession.

392 Contemporary American Social Services (4)

Prereq: 391 or perm. Development of specific social services to meet human needs and evaluation in terms of their relevancy and ade-

quacy in our present society. Individual studies in areas of particular interest (*i.e.*, child welfare, mental health, etc.).

394 Comparative Social Welfare Systems (3)

Prereq: 8 hrs of social welfare. Examination and comparison of social welfare problems and response-systems in various nations, including Canada, Sweden, England, USSR, Yugoslavia and Cuba. Particular attention given to issues of social and economic security, social mobility, crime, health and social policy formation.

490 Social Work— The Professional Practice (4)

Prereq: minimum of 8 hrs of social welfare. Examination of various components of generic social work practice including problem focus, goals, methods, philosophy, values, ethics, knowledge base, etc. Development of particular skills and techniques necessary to problem solving.

491 Field Experience (4)

Prereq: 490 and perm. Assignment to a social agency or related organization to observe and participate in the agency functioning and to carry direct responsibility for delivery of services. Participation in weekly seminar and scheduled conferences with faculty instructor required.

492 Field Experience (4)

Prereq: 491. Continuation of 491. See 491 for description.

493 Social Policy (4)

Prereq: 491 or perm. Examination of social policy stressing policy development; relationships of policy, goals and organizational structure, and decision-making patterns and role assignments within social welfare organizations and agencies.

498 Independent Studies and Special Projects in Social Work (3-5)

Prereq: 12 hrs in social work or perm. Student responsible for design and implementation of course of study or special project in an area related to social work. Student interested in course must submit proposal for approval by department chairman at least 30 days prior to enrollment in course.

499 Independent Studies and Special Projects in Social Work (3-5)

Prereq: 498. Continuation of 498. See 498 for description.

SOCIOLOGY AND ANTHROPOLOGY

Anthropology

The anthropology major requires a minimum of 45 credit hours in anthropology and selected related fields. Of these, Anth 270, 373, 374 and 472 are required for all students. Additionally, 12 credit hours in anthropology above the 400 level are required, and 16 credit hours (at any level) in either anthropology or related fields (as approved by the student's adviser) will complete the major.

There are many courses offered at Ohio University which may be relevant to the particular student's goals in anthropology. A student who wishes to have courses other than anthropology credited to the major must work out his major plan with his anthropology adviser. No hours may be credited to both the anthropology major and to College of Arts and Sciences general requirements.

Sociology

The major requirement for the AB degree in sociology is a minimum of 45 quarter hours of courses in sociology, of which at least 16 hours must be at the 400 level, and including: introductory sociology (101 or 302), one course in methods (350 or 351) and one course in theory (403 or 404). (Courses in anthropology count toward the Arts and Sciences social requirement.)

Anthropology

270 Basic Concepts of Anthropology (5)

Prereq: fr, soph, jr rank. Nature of cultural diversity; origins and evolution of man and socio-cultural systems; anthropological explanations of these. Replaces Anth 170.

348 Enculturation (4)

Prereq: 270. Survey of ways of growing up in various cultures, emphasizing relationship between individual and culture.

350 Economic Anthropology (4)

Prereq: 270. Survey of economic arrangements found in various types of cultural systems, with emphasis on application of anthropological theory and method for understanding of particular systems.

351 Political Anthropology (4)

Prereq: 270. Cross-cultural survey of political arrangements with emphasis on application of anthropological method and theory to political problems.

352 Paleoethnology (4)

Prereq: 270, 371 or perm. Introduction to "the new archeology" in which goals, theory and methods are directed toward reconstruction of extinct sociocultural systems rather than toward time-space distribution of archeological materials.

366 Cultures of the Americas (4)

Prereq: 270. Survey of cultural diversity present in North, South or Meso-America with emphasis on application of anthropological method and theory to understanding of particular sociocultural systems.

370 General Anthropology (5)

Sr terminal course in anthropology. Not open to students who have taken 270 or 170.

371 Ethnology (4)

Prereq: 270. Cross-cultural survey of structure and process in various cultures; includes consideration of kinship, economics, politics and ideology. Replaces social anthropology.

372 Cultures of the World (4)

Prereq: 270. Sampling of similarities and differences in cultural systems found around the world and through time.

373 Traditional Perspectives in Anthropology (4)

Prereq: 270. Primarily for anthropology majors. Includes following areas of anthropological concern: nature of scientific inquiry, ethnology (historical school, structural-functional approach, evolutionism, culture and personality), linguistics, archeology, physical anthropology..

374 Contemporary Perspectives in Anthropology (4)

Prereq: 270 and 373. Primarily for anthropology majors. Issues and research of contemporary interest in anthropology. Includes such areas as ecological, cognitive, economic, political, psychological and applied anthropology, primate behavior studies, paleoethnology, etc.

375 Culture and Personality (4)

Prereq: 8 hrs; psychology recommended. Interrelations between personality systems and cultural systems.

377 Peasant Communities (4)

Prereq: 270. Focuses on folk component of preindustrial civilized states as preserved into recent and contemporary times.

Sociology and Anthropology

381 Culture Areas of Sub-Saharan Africa (4)

Prereq: 270 and 371 or perm. Survey of cultural diversity present in sub-Saharan Africa with emphasis on application of anthropological theory and method to understanding of particular sociocultural systems.

382 Prehistory of Europe (4)

Prereq: 270. Archeological material of European cultures from Neolithic to early Middle Ages, principles of excavation, problems of analysis and research.

385 Cultures of Southeast Asia (4)

Prereq: 270 and 371 or perm. Survey of cultural systems of island and mainland Southeast Asia.

386 Problems in Southeast Asian Anthropology (4)

Prereq: 270 and 385 and perm. Selected topics of current theoretical concern relating to Southeast Asia.

387 Cultures of Oceania (4)

Prereq: 270. Anthropological survey of Melanesia, Polynesia and Micronesia, with emphasis on social structure and religion.

390 Biology, Society and Culture (4)

Prereq: 270 or Biol 101. Basic approach to human paleontology and biology of contemporary man, with emphasis on human development and diversity.

399 Readings in Anthropology (1-3, max 6)

Prereq: 8 hrs and perm. Supervised readings in various fields of anthropology: archeology, ethnology, linguistics, physical anthropology.

455 Seminar in Methodology and Field Research (4-6)

Prereq: 270, 8 hrs and perm. Practical training in application of theoretical models to data in one of following sub-fields: archeology, ethnology, physical anthropology. Primarily designed for anthropology majors.

457 Anthropology of Religion (4)

Prereq: 270, 8 hrs or perm. Survey of various aspects of religion in their cultural setting, with emphasis on use of anthropological theories for an objective understanding of religion.

458 Women: A Cross-Cultural Survey (4)

Prereq: 270, 8 hrs or perm. Cross-cultural survey of women, with emphasis on factors determining role and status of women in various types of cultural systems.

472 History of Anthropological Thought (4)

Prereq: 12 hrs or perm. In-depth examination of schools of anthropology as they have developed within various sub-fields at different times and places.

476 Culture Contact and Change (4)

Prereq: 12 hrs or perm. Impacts of cultures upon one another: immediate and subsequent cultural adaptations. Replaces Anth 376.

478 Cultural Ecology (4)

Prereq: 12 hrs or perm. Analysis of mutual and reciprocal relations between socio-cultural systems and other systems in their environment; eco-systems and biotic communities in which human populations are included.

490 Independent Research in Anthropology (1-10, max 10)

Prereq: open to srs only, 20 hrs anthropology and written perm prior to qtr in which study is begun. Individual research in anthropology in specific problem areas in which student has demonstrated ability and interest.

491 Primate Social Organization (4)

Prereq: 8 hrs or perm. Introduction to primate ethology, with reference to development of cultural behavior.

492 Human Evolution (4)

Prereq: 270. Basic principles of synthetic theory of evolution, development of mammals and evolution of primates, with emphasis on Pongidae and Hominidae.

494 Seminar in Anthropology (4-6, max 12)

Prereq: 8 hrs and perm. Selected topics in anthropology.

Sociology

101 Introduction to Sociology (5)

Prereq: fr or soph rank. Nature of human society and factors affecting its development. Fundamental concepts of sociology: culture, personality, groups, institutions.

302 Principles of Sociology (5)

Prereq: jr or sr rank. Same as 101, covered in a more intensive manner. Not open to students who have taken 101.

309 Sociology of Appalachia (4)

Prereq: 101 or perm. Intensive study of Appalachia from sociological perspective. Emphasis on population of Appalachia (number and distribution of inhabitants, characteristics of population, vital processes and migration),

"culture of rural poverty," acceptance of innovation and social change in Appalachia, major social institutions in the area and community power structure in Appalachia.

310 Introduction to Social Psychology (4)

Prereq: 101 or 302. Patterning of conduct through social interaction; functional analysis of individual-group relationships in various organizational contexts; current theory and research in the field.

311 Crowd and Mass Behavior (4)

Prereq: 101 or 302. Collective behavior resulting from social unrest; social contagion; formation and behavior of crowds; cults and sects; panic and disaster behavior; various types of mass behavior; impact upon social institutions.

315 The Individual in Mass Society (4)

Prereq: jr or sr rank. Analysis of implication of cultural and social complexity for processes of individuation, identity formation, and identity maintenance. Consideration of simultaneous growth of secondary relations and dissolution of primary relations, and of significance of these to social, psychological and cultural organization as we approach automated society.

320 Introduction to Family Sociology (4)

Prereq: 101 or 302. Cross-cultural analysis of family systems. Primary emphasis on American family: courtship, marriage and family relationship.

323 American Society (4)

Prereq: 101 or 302. Sociological interpretation of American society. Institutional order: family, economy, government, education and stratification. Problem of stability of social and cultural systems.

327 Sociology of Education (4)

Prereq: 101 or 302. School as social institution in relation to community and development of child; comparative systems of education; sociology of learning and teaching.

329 Race and Ethnic Relations (4)

Prereq: 101 or 302. Racial, male-female and ethnic problems in America; causes and consequences of prejudice and discrimination.

340 Population Analysis (4)

Prereq: 101 or 302. Social and cultural determinations and consequences of changes in fertility, mortality and migration. Current and historical national and international population policies and programs.

350 Social Statistics (4)

Prereq: 101 or 302. Principles and procedures in treatment and presentation of quantitative social data. Methods of measuring central tendency, dispersion and association. Scientific sampling, estimation and tests of significance.

351 Elementary Research Techniques (4)

Prereq: 8 hrs. Research techniques in sociology. Research design; collection, recording and analysis of data.

352 Field Studies in Sociology (4)

Prereq: 351. Planning, execution and write-up of an empirical study, utilizing skills developed in 351. Limited class meetings, conferences with instructor, research report.

360 Social Problems (4)

Prereq: 101 or 302. Sociological analysis of major contemporary social problems and issues. Problems such as militarism, poverty, racism, inequality, cybernation, dehumanization, repression and constraint, among others, will be considered. Theories and research on social structure, social policy and social action.

361 Deviant Behavior (4)

Prereq: 8 hrs. Theory and research concerning major types of deviant behavior and societal reaction to such things as criminality, suicide, drug addiction and mental disorders. Causes and consequences of deviant behavior.

362 Criminology (4)

Prereq: 8 hrs. Theories and research in criminal behavior and the societal reaction to criminality. Causes and consequences of crime.

363 Juvenile Delinquency (4)

Prereq: 8 hrs. Theories and research in delinquency. Causes and consequences of delinquent behavior among juveniles.

403 Development of Sociological Thought (4)

Prereq: 8 hrs. Major sociological concerns and concepts in relation to their social-historical setting. Special emphasis upon sociological thought in 18th and 19th centuries. Replaces Soc 303.

404 Modern Sociological Theory (4)

Prereq: 12 hrs. Critical examination of major sociological conceptual frameworks in 20th century. Replaces Soc 304.

405 Readings in Sociology (1-3, max 3)

Prereq: 12 hrs and perm. Independent, directed readings designed to expand student's understanding in selected area of interest. Replaces Soc 305.

Sociology and Anthropology

406 Proseminar in Sociology (4)

Prereq: 20 hrs. Critical examination of selected theoretical and research problems. Primarily for advanced students in sociology.

407 Social Process and Change in Southeast Asia (4)

Prereq: perm. Social processes and change in traditional institutional and communal patterns in mainland and island regions and differential impact of change upon various groups, personalities and social relationships. Replaces Soc 307.

408 Latin American Society (4)

Prereq: 8 hrs or prev course on Latin America or perm. Intensive study of Latin American society from sociological perspective. Emphasis on contemporary Latin American values, population problems, man-land relations, levels and standard of living, social institutions, urbanization and social change.

412 Public Opinion Process (4)

Prereq: 310 or 311. Attitudes and opinions in relation to formation of public opinion; political socialization and participations; social status, reference groups, decision-making and role of mass media. Structure and process in behavior publics. Replaces Soc 312.

413 Mass Communication (4)

Prereq: 311 or 412. Personal and social functions of content in newspapers, radio, television and film. Types of audiences and communication effects. Organization and control of mass media and problems in evaluation. Replaces Soc 313.

414 Contemporary Social Movements (4)

Prereq: 8 hrs. Organized movements resulting in major social changes; revolutionary, nationalistic, reform; religious agitation, leadership, ideology, case studies of typical movements. Replaces Soc 314.

416 Society and the Individual (4)

Prereq: 8 hrs sociology and psychology or perm. Exploration of compatibilities and/or contradictions in psychological systems, culture and social structure.

419 Small Group (4)

Prereq: 310 or 12 hrs of psychology. Major theories and methods for study of small group as unit of social systems; communication patterns, role definition, leadership, cohesion, etc.; review of current literature. Replaces Soc 319.

421 Comparative Study of Family and Marriage (4)

Prereq: 320 or equiv. Intra-cultural and cross-cultural differences and similarities in mar-

riage patterns and family types, their social and cultural determinants and consequences and their significance for family life. Replaces Soc 321.

422 The American Family System (4)

Prereq: 320 or equiv. Evolution of American family from colonial to present time. Structural and functional trends in light of theory and research. Replaces Soc 322.

424 Urban Sociology (4)

Prereq: 8 hrs. Historical development and recent emergence of city as dominant feature of modern social life. Special emphasis upon demographic and ecological patterns and social organization of urban region. Replaces Soc 324.

425 Rural Sociology (4)

Prereq: 8 hrs. Rural population, community and institutions in America and other societies. Historical developments and current trends. Rural life organizations and movements. Replaces Soc 325.

426 Industrial Sociology (4)

Prereq: 8 hrs. Interrelationship between industrial and social order. Special attention to social organization and processes within formal and informal structure of industrial unit. Replaces Soc 326.

428 Sociology of Religion (4)

Prereq: 8 hrs. Interrelationship between religious institution and social structure from comparative perspective and with particular reference to American society. Replaces Soc 328.

430 Sociology of Organization (4)

Prereq: 8 hrs. Organization and structure of social groups. Basic cultural patterns of economic, kinship and other institutions. Integration and disintegration of social groups and institutions. Replaces Soc 330.

431 Social Stratification (4)

Prereq: 8 hrs. Social and economic classes, castes and other social strata, their origin, changes and correlates in other spheres of society. Replaces Soc 331.

432 Political Sociology (4)

Prereq: 8 hrs. Social and cultural basis of influence, power and authority. Emphasis upon informal aspects of political process in groups and institutions other than government.

433 Sociology of Occupations and Professions (4)

Prereq: 8 hrs. Professionalism as characteristic of modern economic and industrial complexes; popular conception and modern theory;

social and technological preconditions; occupation-profession continuum; components, barriers and strategy; mock-professionalism; motivation and satisfaction; controls; professionalism in particular professions.

441 Population Theories (4)

Prereq: 8 hrs. Major theoretical frameworks in population analysis; how they account for changes in fertility, mortality and migration; impact of these changes on human society.

453 Research Problems in Sociology (2-6)

Prereq: 20 hrs including 351 and written perm prior to registration. Individual research in specific problem areas in which student has demonstrated ability and interest. Replaces Soc 353.

464 Social Control (4)

Prereq: 12 hrs. Nature of institutional control and sociocultural constraint as they affect human behavior. Theories and research.

465 Social Change (4)

Prereq: 12 hrs. Dynamics and processes by which social change takes place; innovation and its diffusion, industrialization and modernization, social evolution and revolution, planned change.

SOUTHEAST ASIAN STUDIES

See International Studies

SPANISH

See Foreign Languages and Literatures

STUDY ABROAD

See p. 94

SWAHILI

See Foreign Languages and Literatures

THEATER

100 Introduction to Theater (3)

(fall, spring) *Staff*. Basic elements of drama and theater; analysis of script as basis for production. 2 lec, 1 recit.

115A Voice for the Stage (2)

(fall) *V. Hahne*. Individual and group instruction in basic elements of vocal training for the stage; must be taken in sequence.

115B Voice for the Stage (2)

Prereq: 115A. (winter) *V. Hahne*. Continuation of 115A; see 115A for description; must be taken in sequence.

115C Voice for the Stage (2)

Prereq: 115B. (spring) *V. Hahne*. Continuation of 115A-115B; see 115A for description; must be taken in sequence.

116A Body Training (2)

(fall) *B. Coy*. Individual and group instruction in basic elements of body training for stage; must be taken in sequence.

116B Body Training (2)

Prereq: 116A. (winter) *B. Coy*. Continuation of 116A; see 116A for description; must be taken in sequence.

116C Body Training (2)

Prereq: 116B. (spring) *B. Coy*. Continuation of 116A-116B; see 116A for description; must be taken in sequence.

130A Technical Production: Scenery (3)

(fall) *R. Winters*. Principles of technical production. 3 lec, 1 lab.

130B Technical Production: Lighting (3)

(winter) *S. Abbott*. Principles of technical production. 3 lec, 1 lab.

130C Technical Production: Costume (3)

(spring) *D. Wilhelm*. Principles of technical production. 3 lec, 1 lab.

215 Principles of Acting (3)

Prereq: soph rank; 115A-B-C and 116A-B-C for majors. Elementary principles and techniques of acting.

220 Oral Interpretation (3)

Prereq: InCo 101 or 103. Techniques in oral interpretation and development of intellectual and emotional responsiveness to meaning of literature. 3 lec.

Theater

240 Introduction to Child Drama (2)

(winter) *W. Mayhew*. Informal theater by children and formal theater for children; their roles in artistic and educational development of children. 2 lec, 1 lab.

301 Play Production (4)

Fundamentals of theatrical production. Lab experience. Not open to theater majors. 3 lec, 2 lab.

310A Acting Studio (8)

Prereq: Theater major and audition. (fall) *R. Hobbs*. Intensive work in acting through exercises and scene study. Additional training in voice, speech, movement and other craft study related to acting.

310B Acting Studio (8)

Prereq: 310A. Continuation of 310A. See 310A for description.

310C Acting Studio (8)

Prereq: 310B. Continuation of 310A and 310B. See 310A for description.

311 Stage Speech (2, max 6)

Prereq: 115A-B-C; theater major. Principles and practice in vocal action for stage. May be repeated.

312 Stage Movement (2, max 6)

Prereq: 116A-B-C; theater major. Principles and techniques of expressive movement. May be repeated.

315 Intermediate Acting I (3)

Prereq: 115A-B-C; 116A-B-C; 215. Continuation of 215.

316 Intermediate Acting II (3)

Prereq: 315, perm. (winter, spring) Continuation of 315.

330A Stagecraft: Scenery (3)

Prereq: 130A,B,C. *R. Winters*. Procedures and practice in theatrical production; practical crew experience. 2 lec, 4 lab.

330B Stagecraft: Lighting (3)

Prereq: 130A,B,C. *S. Abbott*. Procedures and practice in theatrical production; practical crew experience. 2 lec, 4 lab.

330C Stagecraft: Costume (3)

Prereq: 130A,B,C. *D. Wilhelm*. Procedures and practices in theatrical production; practical crew experience. 2 lec, 4 lab.

332 Theatrical Rendering (3)

Prereq: 330A,B,C. (fall) *R. Lacy*. Drafting, perspective, color and rendering as applied to production design. 2 lec, 2 lab.

333 Historical Bases of Design (4)

Prereq: 330A,B,C. (fall) *R. Winters*. Art history from prehistoric times and application to production design. 4 lec.

337 Basic Makeup (1)

Prereq: theater or communication major. Theory and practice of stage makeup. 1 lec, 1 lab.

340 Dramatic Literature for Children (3)

(fall, spring) *W. Mayhew*. Examination of plays for child audiences and literature for dramatization by children. 3 lec.

350 Playwriting (5)

(fall) Theory and practice of dramatic writing.

370 Theater History I (3)

S. Quinn. Development of theater and drama in the western world. 370: prehistoric, Greek and Roman periods; 371: Medieval and Renaissance; 372: from Renaissance to modern. 3 lec.

371 Theater History II (3)

Prereq: 370. Continuation of 370. See 370 for description.

372 Theater History III (3)

Prereq: 371. Continuation of 370 and 371. See 370 for description.

390 Individual Projects (1-8, max 8)

Prereq: perm. May be repeated for total of 8 credits. Arranged.

405 Practicum in Management (1-4)

Prereq: perm. May be repeated for a total of 17 credits. Supervised laboratory practice in problems of theater publicity, finance and house management.

410A Advanced Acting Studio (8)

Prereq: 310A,B,C; perm. (fall) *R. Hobbs*. Advanced study in acting and related craft work. Problems of rehearsal and performance.

410B Advanced Acting Studio (8)

Prereq: 410A. Continuation of 410A. See 410A for description.

410C Advanced Acting Studio (8)

Prereq: 410B. Continuation of 410A and 410B. See 410A for description.

413 Acting Internship (1-12)

Prereq: perm.

415 Practicum in Acting (1-4)

Prereq: perm. May be repeated for a total of 17 credits. Supervised laboratory practice in rehearsal and public performance of roles.

420 Advanced Interpretation (4)

Prereq: 220 or equiv. Analysis and oral presentation of principal types of literature. 3 lec/recit.

421 Methods of Teaching Theater I (3)

Prereq: perm. (fall, spring) *W. Mayhew*. Philosophy of theater education; exploration of teaching methodologies; organization of objectives, content and learning activities.

422 Methods of Teaching Theater II (2)

Prereq: 421 or perm. (winter, spring) *W. Mayhew*. Individual projects in development of study units in theater and related subjects, evaluation procedures and lesson plans.

430 Advanced Stagecraft (4)

Prereq: 330A-B-C, 332. (fall) *R. Lacy, R. Winters, S. Abbott*. Advanced problems of scenery construction, handling and rigging. 2 lec, 2 lab.

431 Theory of Lighting (4)

Prereq: 330A-B-C, 332. (winter) *S. Abbott*. Creative processes in design and execution of lighting for proscenium and non-proscenium forms. 3 lec, 2 lab.

432 Properties and Special Effects (4)

(winter) Problems of properties, sound and special effects. 2 lec, 2 lab.

433 Scene Design (4)

Prereq: 332. (winter) *R. Lacy, R. Winters*. Principles and projects in scene design as a part of production design. 2 lec, 2 lab.

434 Practicum in Production Design (1-4)

Prereq: perm. May be repeated for a total of 17 credits. Supervised laboratory practice in design and execution of scenery, lighting, costumes, properties and sound.

435 History of Costume (4)

Prereq: 330A-B-C. (fall) *D. Wilhelm*. Development of dress and influence of cultural factors from Egyptian and Asian civilizations, including fabrics, accessories and ornamentation. 4 lec.

436 Costume Design (4)

Prereq: 435. (winter) *D. Wilhelm*. Application of principles of design to stage costuming, with emphasis on fabrics, figure drawing and characterization. 2 lec, 2 lab.

438 Advanced Makeup (3)

Prereq: 337, perm. (fall and winter) *D. Wilhelm*. Corrective, 3-dimensional and nonrealistic makeup; rubber prosthesis; character analysis. 1 lec, 2 lab.

440 Children's Theater (3)

Prereq: 340 or perm. (fall) *W. Mayhew*. Philosophies and practical production procedures for child audiences. 2 lec, 2 lab.

441 Creative Dramatics (3)

Prereq: 340 or perm. (winter) *W. Mayhew*. Methods and techniques of guiding children through art of creation of informal drama with special emphasis on methodology for elementary teachers. 3 lec.

450 Advanced Playwriting (5)

Prereq: 350 or perm. Special problems in writing the long play.

451 Playwrights Workshop (3, max 9)

Prereq: perm. Practical workshop experience for playwrights, directors and actors with new scripts. May be repeated.

460 Directing I (3)

Prereq: 12 hrs including 215. (fall, winter) Principles and practices of directing for the stage. 3 lec.

461 Directing II (3)

Prereq: 460. (winter, spring) Practical experience in directing for the stage. 4 lab.

465 Practicum in Directing (1-4)

Prereq: perm. May be repeated for a total of 17 credits. Supervised laboratory practice in planning and executing a dramatic production.

470 Greek Theater and Drama (4)

(fall, odd academic years) Drama, theater and audience in ancient Greece. 3 lec.

471 Roman and Medieval Theater (4)

(winter, odd academic years) Intensive study of drama and theater of Roman and Medieval Europe. 3 lec.

472 Renaissance Theater and Drama (4)

(spring, odd academic years) Development of European theater and drama in Renaissance. 3 lec.

473 Restoration and 18th Century Theater (4)

(spring, odd academic years) Drama, theater and audience in England from Restoration through 18th century. 3 lec.

- 474 Baroque European Theater (4)**
(fall, even academic years) Detailed study of theater and drama of Europe in Baroque period. 3 lec.
- 475 19th Century European Theater (4)**
(winter, even academic years) Major developments in drama and theater in Europe during 19th century. 3 lec.
- 476 Contemporary Theater (4)**
(spring, even academic years) Trends and developments in 20th century theater. 3 lec.
- 477 American Theater and Drama (4)**
(spring, even academic years) Development of theater and drama in North America from colonial to modern times. 3 lec.
- 498 Advanced Individual Projects (1-6, max 6)**
Prereq: perm. May be repeated for a total of 6 credits. Arranged.
- 499 Independent Readings (1-12, max 12)**
Prereq: perm. May be repeated for a total of 12 credits. Arranged.

ZOOLOGY AND MICROBIOLOGY

Microbiology

Zoology

Medical Technology

The major requirement for the AB and BS degrees is a minimum of 36 and 45 quarter hours respectively in approved departmental courses. Except where a course is officially waived or substituted because of specific pre-professional curriculum recommendations, every major must include Zool 101, 203, Bot 102, Zool 303, 325 and one quarter of physiology, usually Zool 460, with at least nine hours in zoology numbered 400 or above. The following extra-departmental courses are required: Chem 121-142-143, organic chemistry (at least 301 and 302) and at least Math 113 or its equivalent.

Curricula are outlined in the College of Arts and Sciences section of the catalog for students preparing for medicine, dentistry, physical therapy, medical technology and zoology. Students who substitute a year in medical or dental school for the senior year at Ohio University are credited with 12 hours toward their major for the AB or BS degree. Those who complete the training in medical technology at Mount Carmel Hospital or at any other hospital approved by the Bureau

of Registry and by Ohio University are credited with 48 hours toward the BS degree. Students who wish to teach and to complete requirements for the AB or BS degree with a major in zoology must meet requirements for certification of teaching, as well as the major requirements.

Students can specialize in microbiology within the department by the appropriate choice of courses.

Microbiology

- 310 Elementary Microbiology (4)**
Prereq: Bot 101 or Zool 101, Chem 121. (fall, spring) *J. Lawrence, C. Atkins*. Bacteria as living systems; methods for their study, utilization and control. Role of microorganisms in soil, food sanitation and disease. 3 lec, 1 lab.
- 411 General Microbiology (6)**
Prereq: 10 hrs biological science; organic chemistry. (fall) *S. Maier*. Properties of bacteria and other protists and their importance in our environment. Laboratory training in common bacteriological methods. 3 lec, 6 lab.
- 412 Microbiological Techniques (4)**
Prereq: 411, perm. (winter) *S. Maier*. Gives microbiology major extensive experience in use of bacteriological techniques and equipment; information retrieval. 2 lec, lab arranged.
- 413 Pathogenic Bacteriology (6)**
Prereq: 411. (winter) *J. Lawrence*. Microorganisms in relation to disease. Disease manifestations, diagnostic and control methods; some aspects of immunity. 3 lec, 6 lab.
- 415 Immunology (7)**
Prereq: 411. (spring) *R. Walker*. Fundamental concepts of immunity, how produced, advantages and disadvantages; fundamental immunological phenomena. 3 lec, 6 and arr lab.
- 416 Immunochemistry (7)**
Prereq: perm. (fall) *R. Walker*. Types of antigens and antibodies; significance in disease and research. Principles and techniques of isolation, purification and assay. Special immunological phenomena. 3 lec, 6 and arr lab.
- 417 Advanced General Microbiology (6)**
Prereq: 411. (fall) *J. Lawrence*. Selected topics: cell structure, staining, sporulation, growth, variation, biochemical tests. Extensive assigned readings in current literatures. 3 lec, 6 lab.

119 Bacterial Physiology (6)

Prereq: 411. (spring) *S. Maier*. Nutrition, function and metabolism of bacteria; pertinent laboratory work illustrating fundamental principles and various experimental techniques. 3 lec, 6 lab.

420 Microbial Genetics (6)

Prereq: Zool 325, 411, biochemistry recommended; perm. (winter) *C. Atkins*. Genetics of bacteria, viruses and selected protists. Techniques and concepts with emphasis on transfer and biochemical expression of genic material. 3 lec, 6 lab.

485 Undergraduate Research (1-3, max 12)

Prereq: 20 hrs and 2.5 gpa in major courses, perm from specific professor. Independent research under supervision of staff member.

H485 Undergraduate Research (1-4, max 12)

Prereq: Zool H384, 3.0 gpa in sciences, perm. Individualized and directed research. Students select topics or are directed into possible research areas.

H495 Undergraduate Research (Thesis) (3-9, max 15)

Prereq: H485, 3.0 gpa in sciences, sr rank. Independent departmental honors research under supervision of staff member. Student should enroll the qtr he expects to complete his thesis.

Zoology

101 Principles of Biology (5)

(fall, winter) *W. Witters*. Principles and concepts of life. Emphasis on principles in cellular biology and elementary biochemistry; classical and modern genetics; evolution and ecology. (Same as Bot 101). 3 lec, 2 lab.

103 Human Biology (4)

Prereq: 101 or Bot 101. (winter, spring) *W. Witters*. The effect of man on the ecosystem. Emphasis on contraceptive technology and research, population pressures, pollution problems and drug abuse discussions with emphasis on drug pharmacology and recent research with selected drugs. 3 lec.

203 Principles of Zoology (6)

Prereq: 101 or Bot 101. (winter, spring) *J. Rovner*. Principles of development, anatomy, physiology, behavior and laboratory survey of major phyla. Designed primarily for majors in the sciences and preprofessional students. 4 lec, 4 lab.

300 Elements of Anatomy and Histology (6)

Prereq: 203; not open to fr. (fall) *B. Allen*. Basic tissues and organ systems of human body. For medical technology, prenursing, premortuary and nonscience students. 4 lec, 4 lab.

301 Human Anatomy (6)

Prereq: 101, not open to fr. (fall, winter) *F. Hagerman*. Structure of body systems with particular emphasis on human skeletal and neuro-muscular systems. Cat used for dissection. For physical education and prephysical therapy students only. 3 lec, 6 lab. (Same as HPER 301).

303 Comparative Vertebrate Anatomy (6)

Prereq: 203, not open to fr. (winter, spring) *R. Elliott, B. Allen*. Comparative study of body systems of vertebrates, with lab work covering various type forms. 3 lec, 6 lab.

305 Histological Technique (3)

Prereq: 203, jr or sr rank. (fall) *J. Gault*. Principles and methods of preparing animal tissues for microscopic study. 1 lec, 4 lab.

325 General Genetics (5)

Prereq: Bot 102 or 203. (fall, spring) *C. Atkins*. Principles and concepts of genetics as revealed by classical and modern investigation. 5 lec.

326 Laboratory Genetics (4)

Prereq: 325. (winter) *J. McQuate, C. Atkins*. Experiments, primarily with *Drosophila melanogaster*, designed to illustrate principles of genetics. 6 lab.

345 Human Physiology (4)

Prereq: 300 or 301; not open to fr. (spring) *F. Hagerman*. Functions of various systems as applied to the human. Special reference to physiological adaptations to environment and exercise. For education, medical technology, physical education and prephysical therapy students only. (Same as HPER 345.) 4 lec.

346 Human Physiology Laboratory (2)

Prereq: anatomy, 345 or with 345. (spring) *F. Hagerman*. Laboratory experiences designed to complement material covered in 345. For prephysical therapy students; others by perm only. 4 lab.

352 Kinesiology (4)

Prereq: 301. Analysis of human motion based on anatomical and mechanical principles. 4 lec. (Same as HPER 252).

371 Ornithology (4)

Prereq: 10 hrs biological science. (spring) *H. Seibert*. Bird biology, including general anatomy and physiology, migration, classification, life histories. Emphasis on field identification. 2 lec, 3 field work.

H384 Introduction to Zoological Investigation (6)

Prereq: perm. (winter) *W. Witters*. Introduction to modern zoological investigation. Individualized laboratory experiences in instrumentation, data collection, handling and experimental design. Discussion of recent advances in zoological research. 3 lec, 6 lab.

H390 Biology and the Future of Man (5)

Prereq: perm. (spring) *W. Witters*. Major topics: contraceptive research and technology, history of population controls, pollution problems and possible controls, radiobiology, genetic engineering, drug pharmacology and drugs of abuse.

404 Comparative Vertebrate Anatomy—Mammalian (6)

Prereq: 303. (fall) *R. Elliott, B. Allen*. Continuation of 303. Anatomy of mammals with particular emphasis on the cat. 3 lec, 6 lab.

406 Vertebrate Embryology (6)

Prereq: 300 or 303. (winter, spring) *W. Peterson*. Development from gametogenesis to organogenesis in representative vertebrate types with laboratory emphasis given to chick and pig. 4 lec, 4 lab.

408 Histology (6)

Prereq: 303. (winter) *O. Heck*. Cells, tissues and organ systems with regard to their morphological and physiological properties. 4 lec, 4 lab.

427 Molecular Genetics (3)

Prereq: 325 or Bot 431, organic chemistry; perm. (spring) *J. McQuate, C. Atkins*. Gene action and fine structure; biochemistry of heredity; cytoplasmic inheritance. 3 lec.

428 Human Genetics (3)

Prereq: 325. (fall) *J. McQuate*. Genetics of man including normal and abnormal chromosomology; human biochemical genetics; genes in individuals, kindreds, populations and evolution. 3 lec.

430 Invertebrate Zoology I (6)

Prereq: 20 hrs in major courses, perm. (winter, alternate years) *W. Hummon*. Structure, function and systematic relationships in invertebrates; Arthropoda, Annelida, Mollusca

and Echinodermata. Students taking this course are encouraged also to elect 2 hrs of 485 which will be used to prepare for and conduct a field trip to the Florida Keys between winter and spring qtrs. 3 lec, 6 lab.

431 Invertebrate Zoology II (6)

Prereq: 430; field trip to Florida Keys recommended. (spring; same year as 430) *W. Hummon*. Structure, function and systematic relationships in invertebrate phyla not included in 430. 3 lec, 6 lab.

433 General Protozoology (6)

Prereq: 15 hrs in biological sciences. (fall; alt yrs) *W. Peterson*. Structure, life histories, physiology and relationships of representatives from all major groups of protozoa. 3 lec, 5 lab.

435 General Entomology (6)

Prereq: 203. (spring) *W. Romoser*. Overview of morphology, physiology, systematics and general biology of insects. 3 lec, 6 lab.

436 Insect Morphology (6)

Prereq: 435. (fall; alt yrs) *W. Romoser*. External and internal structure of insects. 3 lec, 6 lab.

437 Medical Entomology (4)

Prereq: 203. (winter) *W. Romoser*. Relationship of insects and related arthropods to human disease. 3 lec.

438 Insect Physiology (3)

Prereq: perm. (fall; alt yrs) *W. Romoser*.

441 Parasitology (6)

Prereq: 203. (spring) *O. Heck*. Etiology of human parasites, their transmission, diagnosis and prevention. 3 lec, 6 lab.

442 Helminthology (6)

Prereq: 203. (fall; alt yrs) *O. Heck*. Biology of parasitic worms with emphasis on physiology, classification, life histories and host response. 3 lec, 6 lab.

445 Physiology of Exercise (4)

Prereq: 345. (winter) *F. Hagerman*. Fundamental concepts describing reaction of organ systems to exercise/muscle metabolism and work evaluation; special reference to physical fitness, sport conditioning and environmental adaptations to exercise. 4 lec. (Same as HPER 414.)

446 Exercise Physiology Laboratory (2)

Prereq: 345, or perm; required for those enrolled in 445/545. (winter) *F. Hagerman*. Laboratory experiences designed to complement 445/545. 4 lab. (Same as HPER 415/515.)

448 Cell Physiology (4)

Prereq: organic chemistry (physics recommended). (spring) *C. Page*. Fundamental processes involving physical and chemical reactions at cellular and molecular levels. Nutrition, energy metabolism, excretion, responsiveness and growth investigated in depth. 4 lec.

449 Cell Physiology Laboratory (4)

Prereq: 448 or with 448, perm. (spring) *C. Page*. Laboratory experiments designed to illustrate experimental bases of principles discussed in 448. 6 hrs lab and arr.

450 Principles of Endocrinology (4)

Prereq: 460 or 448 recommended. (fall) *P. Jones*. Endocrine control of mammalian homeostasis and metabolism. 4 lec.

451 Endocrinology Laboratory (4)

Prereq: 450. (winter) *P. Jones*. Experimental techniques pertinent to study of endocrine glands including surgical ablation of one or more glands using rat, mouse and rabbit. 6 lab.

452 Advanced Endocrinology (4)

Prereq: 450. (spring) *P. Jones*. Discussions of current research in mammalian endocrinology. Emphasis on reproduction controls and mechanisms. 4 lec.

456 Comparative Neurophysiology (5)

Prereq: 448 or 460, perm. (winter; alternate years from 480.3) *C. Lent, C. Page*. Principles of comparative, integrative neurophysiology, lectures and seminar. 4 lec, 2 sem.

460 Animal Physiology (5)

Prereq: Organic chemistry (physics, calculus and 448 recommended). (fall) *C. Lent*. General and comparative physiology emphasizing principal functions underlying life processes. Emphases placed on physiological adaptations to environment and neurophysiological systems. 5 lec.

461 Animal Physiology Laboratory (4)

Prereq: 460 or with 460, perm. (fall) *C. Lent, C. Page*. Laboratory exercises designed to illustrate experimental basis of principles covered in 460. 6 and arranged lab.

463 Cell Chemistry (4)

Prereq: Chem 302 recommended, Chem 123 acceptable for HEFN students. (fall) *J. McQuate, J. Wilson*. Chemistry of carbohydrates, lipids, proteins and nucleic acids. Principles of enzyme activity and kinetics; metabolic pathways. 4 lec.

464 Cell Chemistry Laboratory (3)

Prereq: 463 or with 463. (winter) *J. Wilson, J. McQuate*. Basic procedures in qualitative and quantitative analysis of biological compounds. For medical technology students only. 3 lab.

473 Ethology (6)

Prereq: perm. (fall) *J. Rovner*. Analysis of exogenous and endogenous factors which regulate behavior of invertebrates and vertebrates. Emphasis on innate behavior. 4 lec, 4 lab.

475 Animal Ecology (3)

Prereq: 203, not open to fr or soph. (spring) *H. Seibert*. Relation of animals to their habitat, to each other and to man. General principles of terrestrial and aquatic communities, ecosystems and man's involvement. 3 lec.

476 Ecology Laboratory (2)

Prereq: 475 or with 475. (spring) *H. Seibert*. Field course for animal ecology, consisting of visits to and studies of various local terrestrial and aquatic communities. 4 lab.

477 Population Biology (4)

Prereq: 325 and Math 115 (Math 263A recommended). (fall) *W. Hummon*. Quantitative aspects of genetics and ecology of both plant and animal populations, with emphasis on a conceptual framework and its application to natural population. 4 lec.

478 Population Biology Laboratory (3)

Prereq: 477 or with 477, perm. (fall) *W. Hummon*. Laboratory exercises designed to illustrate experimental bases of principles discussed in 477. 4 and arr lab.

479 Evolution (4)

Prereq: 325. (fall, winter) *H. Seibert*. Evidence for, and current ideas and research on mechanisms of, organic evolution. 4 lec.

480 Biological Research Methods (2-4)

Prereq: perm.

480.1 Microscopy and Photomicrography (2)

W. Peterson.

480.2 Techniques in Electron Microscopy (3)

(fall) *R. Hikida*. Principles and methods for preparation of biological specimens for ultrastructural analysis and research, and some associated techniques. Instruction in microscope operation and maintenance, and dark-room techniques.

Zoology and Microbiology

480.3 Neurophysiological Techniques (6)

Prereq: perm. (winter; alternate years from 456). *C. Lent, C. Page*. Intensive examination of electrophysiological techniques employed in neurophysiological research. Emphasis placed on microelectrode recording methods.

485 Undergraduate Research (1-3, max 12)

Prereq: 20 hrs and 2.5 gpa in zoology, perm from specific professor. Independent research under supervision of staff member.

H485 Undergraduate Research (1-4, max 12)

Prereq: H484, 3.0 gpa in sciences, perm from specific professor. Individualized and directed research. Students select topics or are directed into possible research areas.

H495 Undergraduate Research (Thesis) (3-9, max 15)

Prereq: H485, 3.0 gpa in sciences, sr rank. Independent departmental honors research under supervision of staff member. Student should enroll the qtr he expects to complete his thesis.

Medical Technology

See curriculum in the College of Arts and Sciences section of the catalog.

Profile of Ohio University

Since its establishment in 1804, Ohio University has made a continuous effort to keep itself abreast of change, improving its offerings and gearing the curricula to meet the current needs of its students.

Ohio University's eight colleges give a breadth of educational possibilities that only a university can offer. The mutual relationship among the colleges allows a student in one college to take courses in the others. He can choose among approximately 100 undergraduate areas of study, 45 master's degree programs and 19 doctoral areas. Ohio University students find their instructors—735 full-time faculty members, more than 90 part-time faculty and over 400 graduate teaching assistants—have time to spend in counseling and help sessions. The relatively small size of most classes gives the instructors an opportunity to know their students as individuals.

The oldest and largest college in the University, the College of Arts and Sciences, is made up of 17 departments in the humanities, social science and natural science areas.

The departments within the College of Business Administration provide training in professional business fields.

The College of Communication has jurisdiction over four schools—Hearing and Speech Sciences, Interpersonal Communication, Journalism and Radio-Television.

The College of Education contains two schools—the School of Home Economics and the School of Health, Physical Education and Recreation.

The College of Engineering and Technology is divided into departments which represent the different aspects of the engineering profession: chemical, civil, electrical, mechanical and industrial and systems engineering.

The College of Fine Arts has under its auspices the School of Architecture, the School of Art, the School of Dance, the School of Music, the School of Theater The Department of Comparative Arts and the Program in Film.

Freshmen and sophomores at Ohio University study in the University College until they qualify for advancement into one of the degree-granting colleges. If they prefer, they may earn either the two-year associate in arts degree or the four-year bachelor of general studies degree within the University College.

The Graduate College has jurisdiction over the requirements and standards for the master's and doctoral degree areas of the University.

Ohio University stands ready to encourage all those who approach in the spirit of the motto carved into the old campus gate on the Athens campus—"So enter that daily thou mayest grow in knowledge, wisdom and love."

Guidelines and General Information



ADMISSION AND FEES

Information for Prospective Undergraduate Students, a bulletin describing the University, its available programs, its admissions procedures and regulations and its history, can be procured by writing to the Office of Admissions, Chubb Hall, Ohio University, Athens, Ohio 45701.

Applications for admission to study at the freshman, sophomore, junior or senior level may be obtained from the Office of Admissions. Application materials and additional information about graduate study are available upon request to the Graduate College.

When to Apply

A person may apply for admission to undergraduate study at any time following his junior year in high school.

New students are admitted to the fall quarter, which opens the fourth week in September; the winter quarter, which opens the first week in January; the spring quarter, which opens the fourth week in March, or the summer quarter, with sessions which open the third week of June and the fourth week of July.

August 1 is the application deadline for the fall quarter. Those needing residence hall space should apply well ahead of this deadline since housing is usually reserved to capacity before this date. Applications for other terms are accepted up to a month before classes begin.

Application Procedures

The applicant's level of formal education and place of residence determine the procedures he follows in applying for admission to the University.

FRESHMAN APPLICANT. If a person (a) has or soon will have a secondary school diploma and (b) has not been enrolled for 12 or more credit hours of course work in a post-secondary institution, he applies as a freshman applicant.

A freshman applicant files (1) an admissions application, accompanied by a \$20 nonrefundable fee; (2) a transcript of all previous high school course work and grades, including rank in class and (3) required test results.

All applicants must submit the Scholastic Aptitude Test (SAT) results. The University recommends the fall test dates, although any is acceptable. The high school counselor or the principal's office has information about when and where this test can be taken and how to register for it.

Admission and Fees

Once the necessary information is filed, the application is processed and a decision is made to grant provisional admission, deny admission or defer a decision pending receipt of additional information from the applicant. The applicant receives written notification of the decision.

If provisional admission is granted, the student receives a residence hall contract and a form for submitting his final high school grades, if the latter were not included on the initial transcript. Within about six months of initial registration he also receives a medical report form.

Once these three documents are completed and returned, final approval for registration is granted. The student's credentials are then forwarded to the dean of University College, who invites the student and his parents to participate in an orientation program.

TRANSFER APPLICANT. If a person has been or is registered for 12 or more hours of course work at a post-secondary institution of education, he applies as a transfer applicant. (For credit evaluation see p. 251.)

A transfer applicant files (1) an application form accompanied by a \$20 nonrefundable fee and (2) a transcript from each post-secondary institution in which he has been registered. Scholastic Aptitude Test scores are not required of transfer students. However, a high school transcript will be requested if that information is not contained on the college transcript.

Once provisional admission is granted, the student receives a medical report form to complete and return with any supplemental transcripts required prior to final approval for registration.

Space is available in University residence halls for transfer students and contracts will be mailed by the Housing Office shortly after admission has been granted. See p. 260 concerning the residence hall requirement.

Students who are applying for transfer to the College of Fine Arts are required to submit a portfolio or audition. The student should make his own arrangements for this by contacting the appropriate school in the College of Fine Arts.

APPLICANT FROM ANOTHER COUNTRY. A citizen of another country applies to the director of admissions if interested in undergraduate study; to the dean of the Graduate College if interested in graduate study.

Following initial inquiry about undergraduate study at the University, the applicant receives a Request for Foreign Application Materials. Once this form is returned and approved, he receives an application for admission.

The applicant files (1) an admissions application; (2) complete official transcripts and pertinent certificates for all secondary and post-secondary work; (3) if his native language is not English, results of the Test of English as a Foreign Language (TOEFL), and (4) such evidence as may be required by the University concerning the applicant's ability to meet the financial obligations of a student in the United States. Whenever possible, the applicant should also submit results of the Scholastic Aptitude Test.

Payment of the \$20 nonrefundable application fee may be deferred until registration time.

An official translation must accompany transcripts and certificates which are not in English. *Do not submit documents for which there is only one copy; documents submitted in support of an application cannot be returned.*

TOEFL test dates for the 1972-73 academic year are October 1972 and January, March and June 1973. If further information about TOEFL is not available in your locality, write the Educational Testing Service, Box 592, Princeton, New Jersey 08540, U. S. A. Registration is five weeks prior to exam.

Once admission is granted, the student receives a medical report form, a residence hall contract and an I-20 form to be used in securing a student visa. The medical report form and housing contract are to be completed and returned to the University prior to arrival on campus.

SPECIAL STUDENT. If an applicant (a) wishes to carry a limited number of courses at the University but is not interested at this time in a degree program or (b) does not meet the minimum requirements (see next section) for admission as a regular full-time student but lives within commuting distance of one of the University's campuses, then he may apply for admission as a special student.

Such persons may be cleared for registration upon completion of a special student application and filing of a statement of good standing or an official transcript from the school(s) previously attended. The statement or transcript must include a report of the applicant's grade point average on all credits attempted.

Special students normally carry fewer than 12 credit hours. A special student who wishes to carry more than 11 hours must secure permission from University College.

The University currently charges a \$10 nonrefundable application fee for special students.

Admission Requirements

A particular pattern of high school subjects is not required for admission to undergraduate study at Ohio University. However, the following distribution of subject matter prepares a student for the pursuit of any curriculum at the University: three years of English, two years of foreign language, two years of social science, two years of a laboratory science, one year of algebra and one year of plane geometry.

FRESHMAN APPLICANT. Residents of the State of Ohio are admitted as regular full-time or special part-time freshmen on the basis of a prediction of their success in a full-time university program of studies. Non-Ohio residents are considered only for full-time study and must meet higher standards.

The prediction of an applicant's success in a full-time program is based on an evaluation of his previous courses of study, the grades he attained, his rank in class, the school's recommendation, test results and special talents.

If a person does not meet the minimum requirements for full-time study but lives within commuting distance of any campus of the University, he may enroll as a special part-time student.

If an applicant does not meet the minimum requirement for full-time study, is less than 21 years of age and does not live within commuting distance of one of the campuses, he should seek admission to another college or university.

TRANSFER APPLICANT. A cumulative grade point average of 2.0 (on a scale where A is 4, B is 3, C is 2 and so forth) is normally required of the transfer applicant who is a resident of Ohio; a higher average

is required of nonresidents. For information related to the credit evaluation and recording of transfer credit, refer to the "Credit and Grading" section of this bulletin.

MEDICAL REQUIREMENTS. A comprehensive medical history report provided by the student is required for admission to the University. This report includes verification that the student has received proper immunization against tetanus within the past ten years.

Each student is also required to take a tuberculosis skin test provided by the University Health Service at the time he first enrolls in the University. If results of the test are positive, the student is required to receive a chest x-ray by the Health Service annually while attending the University.

A major medical insurance plan, designed to supplement the care provided by the University's Health Center, is mandatory for each full-time student, unless he submits evidence of comparable coverage under a private plan. Annual premium for the University's plan is \$16.

Entrance Medical Requirements

The health service maintains a confidential, continuous health record which is required for final admission to the University. The medical report must include indication of completion of the required proper immunization against tetanus within the past ten years.

Required of each new student is a tuberculosis skin test administered by the University Health Service at the time of entrance to the University. All positive skin test reactors must receive a chest x-ray by the Health Service annually while attending the University.

Students who resume their studies at Ohio University after an absence of two or more years are required to submit the report of medical history as required of all new students entering the University. A tuberculosis skin test at the time of such reenrollment at the University is also required.

Ohio Residency

It is the responsibility of the student to report a change of residency from that of an Ohio resident to a non-Ohio resident at the Office of Student Records. If the student's residency has changed from that of a non-Ohio resident to an Ohio resident, he should file the appropriate application with the Admissions Office.

In determining whether or not an enrolled student is an Ohio resident for purposes of the appropriation subsidy, each state-assisted institution shall make a determination of fact in accordance with these standards:

1. A dependent student shall be considered to be a resident of Ohio if his or her parents or legal guardian has resided in Ohio for 12 consecutive months or more immediately preceding enrollment, or if his or her parents reside in Ohio at the time of enrollment and at least one of the parents is gainfully employed on a full-time basis in Ohio.
2. A student shall be considered to be an Ohio resident regardless of the place of residence of the parents or legal guardian at the time of enrollment if the student resides in Ohio and has resided in the state for 12 consecutive months or more immediately

preceding enrollment and if the student presents satisfactory evidence that the parents or legal guardian has not contributed to his or her support during the preceding 12 months and does not claim him or her as a dependent for federal government income tax purposes.

3. A student shall be considered to be an Ohio resident regardless of the place of residence of the parents or legal guardian at the time of enrollment if the student is gainfully employed on a full-time basis and resides in Ohio, and is pursuing a part-time program of instruction and if there is reason to believe that the student did not enter Ohio primarily for the purpose of enrolling in an Ohio institution of higher education.
4. The residency status of a married student shall be determined without regard to the residency status of the student's spouse.
5. A person in military service or the dependent of a person in military service shall be considered to be a resident of Ohio during the period of time when that person is on active duty status in Ohio and has established a residence in Ohio.
6. A person who enters upon active duty status in the military service as a resident of Ohio and the dependent children of such a person shall be considered to be residents of Ohio if they provide proof of continued domicile in Ohio and of continued eligibility to vote in Ohio.
7. A student classified as a resident of Ohio whose parents or legal guardian moves his residence to another state shall be considered to be a resident of Ohio until completion of the degree program in which the student is currently enrolled.
8. A student who at the time of enrollment enters the State of Ohio from another state for the primary purpose of enrolling in an Ohio institution of higher education shall be considered to be a nonresident student, and shall continue to be so considered during the period of continuous enrollment as a full-time student in an Ohio institution of higher education.
9. An alien student admitted to the United States on a student visa or other temporary visa shall be considered to be a nonresident student. An alien holding an immigrant visa may establish Ohio residency in the same manner as a citizen of the United States.
10. A student classified as a nonresident student may appeal the classification to an appropriate officer or administrative panel duly constituted by an institution of higher education and may be reclassified as a resident of Ohio if:
 - a. the dependent student presents conclusive evidence that his or her parents or legal guardian has established a residence in Ohio and at least one of the parents is gainfully employed on a full-time basis in Ohio;
 - b. the student, in addition to demonstrating financial independence from parents, presents clear and convincing evidence of exceptional circumstances justifying a change in classification because of having established a separate residence in Ohio for 12 months or more preceding the request for reclassification and because of having made a definite commitment to enter into gainful employment in Ohio upon completion of a degree program within the ensuing 12 months.

Admission and Fees

Registration Fees

Undergraduate registration fees are payable at the Cashier's Office* prior to the opening of classes and in accordance with instructions issued with registration materials. Checks and money orders should be made payable to Ohio University in the exact amount of the fees. It is important that the student retain all fee receipts.

Payment of fees owed is a prerequisite to official enrollment, and all students should have sufficient funds to cover these expenses. Post-dated checks will not be accepted. Checks issued to the University and not paid on presentation to the bank will automatically cancel any receipts given and result in the assessment of penalties.

Ohio University reserves the right to make, without prior notice, any fee adjustments that may become necessary.

*Regional campus students pay fees at the campuses where they are registered.

The Quarter:

	Resident of Ohio	Nonresident
Comprehensive for load of		
11 to 18 hours, inclusive—Athens	\$260	\$660
—Regional campuses	240	640
Includes the instructional fee—the general fee, and other special services (such as health, library and testing) and course and laboratory fees. Excludes fees for private instruction as in music and bowling, which are listed in the course descriptions.		
Extra fee for each quarter hour in excess of		
18 hours—Athens campus	\$ 24	\$ 60
—Regional campuses	22	58
Fee for each hour for load of 1 to 10 hours,		
inclusive—Athens campus	24	60
—Regional campuses	22	58
Auditors pay fees in full as above.		

Correspondence Study:

Registration for each quarter hour	\$17.50	\$20.00
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Extension and Evening School Classes:

Registration for each quarter hour	17.00	47.00
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Miscellaneous Fees

Admission application filing fee (nonreturnable)	\$20.00
Change of course or change of college	2.00
Duplicate official forms, fee receipts, grade report, etc.	2.00
Course credit by examination each quarter hour	5.00

Graduation

Application for degree	
Associate in Arts	\$ 7.50
Bachelor's degree	15.00
Master's degree	20.00
Doctoral degree	50.00
Late registration and/or payment	20.00
Reapplication	5.00
Penalty for late application, if approved ..	5.00
Transcript of record	1.00
Placement Registration Fee	2.00

Refund of Fees

Withdrawal from a course by change order within the approved period specified in the calendar entitles a student to an 80 percent refund if it results in a fee change.

Official withdrawal from the University during any term entitles the student to a refund of 80 percent of the comprehensive fee during the period specified in the calendar. There is no refund after this date.

Once a student has officially registered, a change order must be used to remove or add a course. The change order form is obtained in the office of the dean of his college and must be submitted within 24 hours, after proper approval by the dean, to the Office of Registration. Failure to clear promptly invalidates the change order and results in a grade of F for the course.

If a student withdraws from the University before he completes full payment of fees, he is considered indebted to the University for the amount determined according to the refund regulations.

Special pro rata refund regulations apply to students who are inducted into military service.

Refunds are issued 30 days after date of withdrawal.

Late Registration and Late Payment Policy

Unless in the judgment of the registrar a student's registration has been delayed due to the convenience of the University, a \$20 *late registration fee* will be assessed all students beginning with the first Monday after the opening day of classes of each quarter. No student registration forms will be accepted after the tenth calendar day of the quarter following the opening day of classes.

A *late payment fee* would normally not be applicable since payment is a prerequisite to registration. However, in addition to other service charges a \$20 *late payment fee* will be assessed by the Bursar's Office on all checks returned by a bank after the payment deadline.

REGISTRATION AND PROCEDURES

Registration

Details concerning the registration procedure are given in the schedule of classes which may be obtained at the Office of Registration before each registration.

A student enrolled in the University completes registration for a subsequent quarter in accordance with regulations announced by the Director of Registration.

A former student obtains registration information by calling at the Office of Admissions or by making his request by mail about a month before the opening of the session he wishes to attend.

A new student receives registration information by mail with other admission material.

STUDENT LOAD

With the exception of commuters, all regular students, including those on probation, will usually carry a normal load of 15-18 quarter hours.

Special students will schedule no more than 11 credit hours each quarter.

AUDITING AND VISITING PRIVILEGE

A student may receive permission to audit courses from the dean of his college. The courses must be marked "audit" on registration forms. The fee for auditing is the same as for credit. Changes from audit to credit or from credit to audit are made by change order during the period when changes are permitted.

With the permission of the instructor, a full-time student has the privilege of visiting classes in which he is not registered.

CLASSIFICATION OF STUDENTS

A student who has been regularly admitted to the University and who expects to pursue a degree course is given rank according to the number of quarter hours completed: freshman, 0-44; sophomore, 45-89; junior, 90-134, and senior 135 and over.

All other students are unclassified. Unclassified students enroll in the University College.

GRADUATE STUDY AS A SENIOR

A student who is within nine hours of completing all requirements for the bachelor's degree at Ohio University may take courses carrying graduate credit, provided he otherwise meets the requirements for admission and secures the written recommendation of the dean of his college, the graduate chairman of his major department and the *approval of the dean of the Graduate College*. This privilege also may be extended to a well-qualified senior of another university, who has nine or fewer hours to complete for his bachelor's degree. *Request for this privilege should be made in advance of registration through the Graduate College Office.*

Change Procedures

CHANGE ORDERS

A student who finds it necessary to add a course, withdraw from a course or correct his registration secures a change order in the office of the dean of the college in which he is enrolled. He then consults the designated departmental representative or the instructor of each course being dropped or added. The departmental representative or the instructor approves the change by initialing the form. After securing the instructor's approval, the student presents the change-order form for the dean's approval and pays the change-order fee of \$2 (if it was assessed by the dean) at the Office of Student Records, Chubb Hall.

A course may be added only during the first ten calendar days of the quarter.

A course may be dropped any time during the first 21 calendar days of the quarter with no academic penalty. After the 21st day a course may not be dropped except for extenuating circumstances and with explicit approval of the instructor.

A student denied permission by his instructor to withdraw from a course may appeal the decision to the dean of the student's college.

CHANGE OF PERSONAL INFORMATION

All changes of personal data must be reported to the Office of Registration, Chubb Hall. Changes of name, social security number and/or birth date must have a document verifying the correct information at the time the request is made.

Forms for reporting a change of home or Athens address are available in the Office of Registration. The student is responsible for any University office communication sent to him at the last address reported to the Office of Registration, Chubb Hall.

CHANGE OF COLLEGE

Application for transfer from one degree college to another is made in the office of the dean of the college in which the student is enrolled and must be made within the first two calendar weeks of each quarter. The change goes into effect when the application, signed by the two deans concerned, has been presented to the Office of Student Records, Chubb Hall, and the transfer fee of \$2 has been paid. A student must fulfill all the requirements of the degree and the college to which he transfers. The change must be completed within two weeks after the opening of a session or the student remains in the college in which he was registered until the next session.

Withdrawal from the University

Application for withdrawal is made on a withdrawal form obtained in the office of the dean of the college in which the student is enrolled. When the request for the withdrawal has been approved by the dean of the college, the order is referred to the Office of Registration, Chubb Hall, which grants an official withdrawal after it has been determined that

Credit and Grading

all obligations to the University have been met. A refund of registration fees is made according to regulations under "Fees."

Special provisions in respect to credits and refunds apply to students who withdraw because of induction into military service.

PROLONGED ABSENCE FROM THE UNIVERSITY

Students who resume their studies at Ohio University after an absence of two or more years will be required to submit the standard history and physical examination form as required for all new students entering the University.

Transcripts

A copy of a student's record is issued by the Office of Student Records, Chubb Hall, as an official transcript. Transcripts are made only upon request. Each copy of the transcript costs \$1. The transcript carries a statement of good standing except when a student has been dropped from the University because of poor scholarship, nonpayment of fees or unsatisfactory conduct. A student on scholastic probation has his status indicated on his transcript.

CREDIT AND GRADING

Credit

All credit is designated in quarter hours. A quarter hour is the equivalent of one recitation or two or more laboratory periods a week throughout a quarter. The final examinations are held during the last week of a session and all students are required to take the examinations according to the schedule issued by the director of scheduling, i.e., if a final examination is required for that course.

The final examination for honors work must be taken before the opening of the regular examination period. For information concerning honors work, refer to "Departmental Honors Program."

Grading System and Reports

At the close of a session or upon the completion of a course an instructor reports a letter grade indicating the quality of a student's work in the course. Points are assigned for each quarter hour of credit earned, according to the following grading system:

- A...Very high with 4 (four) points per quarter hour attempted
- B...High with 3 (three) points per quarter hour attempted
- C...Average with 2 (two) points per quarter hour attempted
- D...Passing but below the level required for making progress toward graduation with 1 (one) point per quarter hour attempted
- F...Not passing, no credit earned and no points awarded but hours attempted added to the attempted total
- CR...In addition to the letter grades a report of credit may be made. This is credit without a grade. Credit is added to the hours earned, but not added to the hours attempted for point-hour calculation. Credit is to be used for certain

courses and only by prior approval of the Curriculum Council or in certain special cases by the dean of the college.

PR...Progress. This indicates that the student has made progress in the course in which he is registered and in which he has completed a substantial part of the work but has not yet finished the work required for releasing a letter grade. This designation will not add to the hours attempted and no points will be awarded. Only when the grade is reported would the hours attempted, hours earned and points be made a part of the record. It is assumed that the student will complete the work of the course in the next quarter in which he is enrolled. There will be no obligation on the part of the professor to arrange for work not completed within this time limit.

Other reports which will appear on the student's grade slip but which are not assigned by a faculty member:

AU...Audit

I*...Administrative Incomplete. Given to a student who initially registers for a course but does not officially drop that course by change order. The I* is given by the Office of Student Records and may be removed in accordance with rules established by the student's college. Until removed, an administrative incomplete will be computed as an F in the calculation of the grade-point average.

NC...No Credit. This is a conversion of the F report for freshman who have not yet earned 45 hours of credit. NC will not appear on the student's permanent record.

NR...Report not yet available from the faculty member, a grade not reported for an official enrollment or processing error. Students with a NR (No Report) should report to the Office of Student Records.

P...Conversion of an A,B,C or D letter grade under the pass-fail election.

W...Designation for a course dropped after the first 21 days of a quarter and prior to final examinations.

A properly submitted form by the student through his college office for a course for which graduation credit is not allowed will appear on the transcript with double asterisks (**) on the same line as the course and an explanation at the bottom of the transcript stating:

** Not counted toward graduation.

Hrs. & Pts. not included in totals for scholastic average.

A properly submitted form by the student through his college office for a repeated course will appear on the transcript in the same manner. Only the final hours attempted and/or earned and points for this course will appear in the transcript totals.

To facilitate the transition from high school to college and to help establish equal opportunities for those of unequal backgrounds, courses failed in the freshman year will not be recorded on the permanent record (for additional information see the *Ohio University Freshman Orientation and Studies Bulletin*.) Should the student wish to eliminate the hours and points for courses in which he earned D grades when he has earned 45 hours, he may request that the dean of the University College, Chubb Hall, make this change.

Credit and Grading

When the Request for Deletion of D Grade Form is properly submitted, the transcript will show a slash (/) through the credit hours, grade and points for that course or courses deleted.

Only the corrected totals will then show for each quarter's work. This carries an explanation at the bottom of the transcript: "/ABC Grading Policy."

The freshman's accumulative average will be computed on hours attempted. A second quarter freshman will be eligible for third quarter enrollment provided he has a total of at least 12 hours of credit earned with grades of D or higher. Retention for the fourth quarter will be based on an accumulation of 24 credit hours earned, of which 12 must be with grades of C or higher.

This program applies to all new freshmen beginning with those entering June, 1970, and is not applicable to a person who has been or is registered for 12 or more hours of course work at a post-secondary institution of education.

PASS-FAIL OPTION

Many colleges and departments place restrictions on the student's taking courses in the major by pass-fail. Coursework taken contrary to these restrictions may not count as credit. The student is encouraged to refer to the departmental office or office of the dean before taking any work in his major by pass-fail. Applications may be obtained at the offices of the deans. Application must be made before the tenth day of the quarter.

THE POINT-HOUR RATIO

The basis for determining scholastic standing is the point-hour ratio. It is obtained by dividing the total number of points earned by the total number of quarter hours attempted.

TRANSFER CREDIT EVALUATION AND RECORDING OF TRANSFER CREDIT

All acceptable transfer credit in which grades of A, B or C have been earned is converted to a T grade symbol on the student's permanent academic record. The number of quarter hours of credit which were earned is recorded on the academic record, but no quality points are recorded. Transfer students therefore enter Ohio University with no grade point average on the Ohio University academic records.

Normally a D grade is not transferable. However, if a D grade has been earned in a course which was a specific prerequisite (as stated in the academic catalog of the prior school) to a course in which the student earned a grade of C or better, then the course in which the D was received will be accepted for credit earned and the T grade symbol will be recorded. Students meriting credit under this stipulation must contact the Office of Admissions, Chubb Hall, to receive credit for this course work.

DEAN'S LIST

The freshman Deans' List, compiled at the close of each quarter, includes the names of all freshmen who have a point-hour ratio of at least 3.3 on a minimum of 45 quarter hours earned. The upperclass Deans' Lists, compiled at the close of each quarter, include the names of all upperclassmen who have a point-hour ratio of at least 3.3 on a minimum of 15 quarter hours of credit earned including 12 hours attempted.

Honors

(See Honors College p. 88.)

Probation Regulations

Each student's record is reviewed at the close of each quarter. If a student's cumulative record shows a grade-point deficiency, he is subject to being placed on probation or dropped from the University. The point-hour ratio is obtained by dividing the total number of grade points earned by the total hours attempted. The entire record, including each grade in each course attempted, is used to determine probation status. In determining points each hour of A equals 4, B equals 3, C equals 2, D equals 1 and F equals 0. Hours of CR, PR, P and W are excluded in the computation.

The extent to which a student's record is below a point-hour ratio of 2.0 (C) determines whether he will be dropped, placed on probation or continued on probation. His deficiency is determined by multiplying the total number of hours attempted by two and subtracting from this all points earned. For example, if a student has attempted 40 hours and has earned 65 points his deficiency is 15: 40×2.0 (the point-hour ratio required for graduation) equals 80; 80 minus 65 points earned equals 15.

DROPPED FROM THE UNIVERSITY

Any student whose grade-point deficiency at the close of a quarter exceeds the number of hours attempted will be dropped from the University. A student may be dropped even though he has not previously been on probation. A student on probation is dropped from the University if his point-grade deficiency has increased and he is not eligible to be removed from probation.

Normally, a petition for reinstatement will not be considered until 12 months after the student was dropped. The student presents the petition to the dean of his college. Only extraordinary circumstances will prompt the committee to consider a petition for second reinstatement, and then not until 24 months after the student was dropped.

A student who is dropped from the University may not enroll for courses on the Athens campus, on a regional campus or in correspondence or extension courses conducted by Ohio University until reinstated.

PROBATION

A student who has attempted fewer than 45 hours is placed on probation when his grade-point deficiency is greater than 12 grade points. This student should note also the University College's policy relating to eligibility for enrollment (above). The student who has attempted 45 or more hours is placed on probation if he has less than a 2.0 average (one or more deficiency points).

PROBATION REMOVED

Probation is removed if a student on probation who has completed no more than 45 hours reduces his grade-point deficiency to 12 or fewer grade points. For the student who has attempted 45 or more hours probation is removed when his point deficiency is reduced to zero.

PROBATION CONTINUED

A student who has been on probation for one quarter may be continued on probation for one additional quarter if his grade-point deficiency has not increased and he is not eligible to be removed from probation. However, at the close of this additional quarter he must be eligible to be removed from probation or he will be dropped from the University.

Class Attendance Policy

Each instructor will convey this policy to his students during the first week of classes each quarter.

INSTRUCTOR'S ATTENDANCE REPORTS

If a student misses the first two class meetings of a course for which he is enrolled, he may be dropped from the course. Official notice of this action will be sent to the student by the Office of Registration in Chubb Hall. A student who has missed the first two classes should verify his status with the instructor.

Instructors are encouraged to report to the office of the dean of the appropriate college the names of students who are frequently absent. This enables the staff to investigate such cases and to determine what assistance these students may need in dealing with problems outside the classroom.

NOTIFICATION OF CAUSES OF ABSENCE

Under certain conditions a notification of absence enabling a student to make up work missed may be obtained from the appropriate office. The following rules apply:

A. When a student has participated in an authorized University activity, such as a departmental trip, music or debate activity, ROTC function or athletic trip, the notification should be issued by the sponsoring office.

B. Students absent from class due to hospitalization as inpatients in the Hudson Health Center are NOT issued a notification of class absence. However, students may request that their instructors call the Health Center for verification of the fact they were hospitalized on certain days.

C. Students who receive medical or dental care as outpatients at the Hudson Health Center will not be issued a notification of class absence. However, students may request their instructors to call the Health Center (the attending physician, if possible) for verification of the fact they received outpatient care on a given day. It is assumed students visiting the Health Center as outpatients will do so without missing classes whenever possible.

D. Students who receive medical care from health care personnel or facilities other than the University Health Service are expected to present the instructors of classes necessarily missed for this reason verification of the date(s) they received such care from the physician or dentist attending them.

GRADUATION REQUIREMENTS

Application

A student who is a candidate for graduation must make application in the Office of Student Records and pay the application fee no later than the deadline listed in the academic calendar of the quarter in which he plans to graduate. This application initiates the process which informs the student's college to check fulfillment of degree requirements. The process culminates with the reflection of the college, major, degree and the date of granting degree on the student's permanent (academic) record. The application fee for a bachelor's degree is \$15 and for an associate in arts degree, \$7.50.

If an applicant fails to meet the requirements for graduation, he may reapply for the quarter in which he plans to complete the requirements. The reapplication fee is \$5.

Scholastic Average

To meet the minimum standards for graduation from Ohio University, a student must have a point-hour ratio of 2.0 (C) on all hours attempted. The need for this 2.0 average applies to the student's total record and to his total major or equivalent as determined by his college.

Major Areas of Study

Requirements for majors and fields of concentration are outlined by the individual colleges. A transfer student whose transcript shows the completion of most or of all the courses in a major area of study may be required by the dean of his college to satisfy the departments concerned that he has met Ohio University's standards in that area before it is recognized for graduation.

Physical Education

Men and women may elect physical education service courses and, subject to exceptions listed by the colleges, apply six hours of this credit toward degree requirements. Students who elect beyond six hours must register as auditors.

See "Service Courses" in the "Courses of Instruction" of this catalog for additional regulations governing service course credit toward the degree requirements.

Residence Requirements for Graduation

The residence requirement is defined as that requirement which stipulates the minimum amount of work (residence credit) that must be completed by the student at Ohio University in order to receive his degree from this institution, when all other requirements for a particular degree program have been met. Residence credit is defined as credit earned by regular enrollment at Ohio University on the Athens campus, on any of the regional campuses, by any of the approved

Graduation Requirements

programs abroad, by any approved student teaching, by correspondence study arranged through Ohio University's Division of Independent Study Through Correspondence and Course Credit by Examination, by degree credit earned through continuing education or by any combination of these means of obtaining credit.

The minimum requirement for students who complete fewer than 90 quarter hours at Ohio University is the final year (three quarters) with 45 hours of credit. For a student who completes 90 or more quarter hours of Ohio University credit, the final quarter shall be in residence as defined by the residence requirement above.

If a student begins graduate study before he completes all requirements for a bachelor's degree, residence for the bachelor's degree will be reduced by as many weeks as credit hours of graduate work completed. The number of weeks subtracted will be credited toward the residence requirement for a master's degree if the credit is acceptable in the program approved for graduate work toward a degree. Residence used for meeting requirements for one or more bachelor's degrees may not be used for meeting the residence requirements for a master's degree.

The residence regulations apply to a student who has been approved for graduation *in absentia* and is completing his last year in an accredited professional school, except that the regulations apply to his residence before he leaves the University to attend the professional school.

The residence requirements also apply to the associate in arts degree.

Problems related to the residence requirements should be discussed with the student's academic dean. In certain cases exceptions to the residence requirements may be made.

In Absentia

In absentia permission is obtained in writing from the dean of the college in which the student is enrolled. Application for graduation *in absentia* is made by a student in the Office of Student Records before he leaves the campus. To obtain his bachelor's degree a student who has been approved for the senior-*in-absentia* privilege in an approved professional school must have completed a full year's work of the quality prescribed for the bachelor's degree at Ohio University, and be eligible for advancement without condition to the second year. The official transcript from the school, accompanied by a statement from the dean of the school certifying that he has satisfactorily completed the full year's work and is eligible for advancement without condition to the second year, must be submitted to the Office of Admissions, Chubb Hall, Ohio University, before the degree-conferring date.

Time Limit

The time limit for fulfilling the published requirements for a degree is five years from the date of first registration in the University. The time limit is enforced by the office of the dean of the student's college. Requirements instituted subsequent to the student's initial registration are applicable at the discretion of the University. The following additional regulations apply.

1. A student who is advanced to a degree college at the end of his first year, and who does not change his major or equivalent, fulfills the requirements in effect at the time he first registered in the University.
2. A student who is retained in the University College for more than one year fulfills the requirements in effect at the time he enters the degree college. If he changes his major or equivalent he fulfills the requirements in effect at the time he makes the change.

A transfer student is governed by the same regulations, except that the number of years in which to complete the degree requirements is reduced by the number of years of transferred work.

Graduation with Honors

A candidate for the bachelor's degree who is graduated with a point-hour ratio of 3.0 up to 3.50 on all hours attempted is distinguished on the commencement program by the notation "with honor," with 3.50 or above, by the notation "with high honor." A student with transferred credit is similarly distinguished if both his Ohio University record and his cumulative record meet the above requirement.

A candidate who has successfully completed a program of study in honors is distinguished on the commencement program by the notation "with honors in," with the appropriate indication of field in which he has achieved distinction.

In addition, the diploma for the candidate who is graduated "with honor" carries the notation "*cum laude*," "with high honor" the notation "*summa cum laude*" is used.

Granting of Degrees and Commencement

Degrees are granted at the close of each quarter. The annual commencement is held at the close of the spring quarter. Candidates for spring quarter graduation and recipients of degrees at the preceding summer, fall and winter quarters are invited to attend the exercises.

A Second Bachelor's Degree

A student who desires two bachelor's degrees may meet the requirements for them either simultaneously or successively:

(a) If a student desires to complete the requirements for the two degrees conferred on the same date, he must meet the particular subject requirements for both degrees; earn a minimum of 45 approved quarter hours beyond the minimum required for one degree with the requisite scholastic average, both on Ohio University work and on the total record when credit has been transferred from another school, and must have completed a total of 13 quarters of college work or its equivalent, with a minimum of five quarters of residence, or the equivalent, at Ohio University. When the two degrees are offered by different colleges, the student must register in both colleges the quarter in which the degrees are to be conferred.

(b) If a student has met the requirements for two degrees as indicated above and desires to have the degrees conferred in successive quarters, he may do so without further credit or residence. For example, he

Graduation Requirements

may have one degree conferred at the end of one quarter and may make application for the second degree in a subsequent quarter.

(c) If a student desires to take a second bachelor's degree after he has received his first, he must complete the subject requirements for the second bachelor's degree, earn a minimum of 45 acceptable quarter hours beyond the requirements for the first degree with the requisite scholastic average and have at least an additional quarter of residence, or equivalent, in the college offering the second degree with the completion of at least 15 acceptable quarter hours.

Course Credit by Examination

In the spring of 1970 a new program was instituted making it possible for a student to earn credit in a wide variety of lower division courses and in selected upper division courses by the taking of a three-hour examination. The program is designed primarily for those students who have achieved a proficiency level in a given course to acquire credit which will permit them to go on to advanced courses in the same subject or to have time in their academic program to take other work.

The program is available at present only to regularly registered Ohio University students. The fee is \$5 per quarter hour of credit; registration is made in the Office of Independent Study Through Correspondence (Tupper Hall 302) and examinations are administered through that office. Permission must be obtained from the academic dean.

Credit is granted for a grade of D or better with the pass/fail option being available following the University regulations for this option. A grade of F is not recorded but in order for a student to retake a course failed in this program the approval of the department chairman must be secured. In general, the CCE program is not intended to be a way for students to retake an examination for a course previously failed in order to improve a total grade point average but special permission may be secured from the student's college for such an arrangement.

A listing of courses currently offered through CCE is available with additional courses being added by departments on request, especially at the upper division level. The grade received in the course credit by examination program becomes a part of the student's academic record and is used to compute his point-hour ratio.

Reserve Officers Training

Both the Air Force and Army offer a four-year and a two-year program of ROTC education. Both programs lead to commissions as second lieutenant in the respective services. ROTC does not increase the total quarter hours required for most degrees, provided the student effectively utilizes his social science electives for this credit. For details see "Reserve Officers' Training" section.

Veterans' Benefits

Students eligible for benefits or students having questions about eligibility for benefits under the Veterans Administration should report to the Office of Registration, Chubb Hall.

SERVICES FOR STUDENTS

Alden Library

The new Alden Library houses the main collection of over 600,000 volumes, including periodical sets and documents. Current issues of over 5,600 periodicals and newspapers are available, plus extensive microform resources. The collection was moved from the Edwin Watts Chubb Library, which had served Ohio University since 1931, to the new library in February of 1969.

Built at a cost of nearly eight million dollars, the seven-story, air-conditioned structure has a capacity of 1,200,000 volumes and provides seating accommodations for 4,000 students. The library was occupied immediately after the first phase of construction; the second phase of construction was begun in early 1971 and was completed in mid-1972.

OTHER COLLECTIONS

To supplement the library's book services, special collections of rare books and archives are maintained in the main library. Music and an art slide collection are housed in other buildings, and departmental collections exist among the scientific disciplines. Fully staffed separate libraries serve the regional campuses.

Separate facilities in the main library house the Fine Arts Library, Special Collections, Governmental Documents, the Children's Library, the Map Library and the centralized microfilm collection.

LEARNING RESOURCES CENTER

The Learning Resources Center, also housed in the main library, provides audio/visual facilities and services to the entire faculty.

LIBRARY SCIENCE COURSES

In 1971/72, six courses in library science were offered by members of the library staff.

Cocurricular Activities

The Office of Cocurricular Activities is responsible for coordinating the extracurricular program of Ohio University students.

The activities staff members work directly with students, student leaders and advisers. The primary purpose is to maintain channels of communication with students in order that the staff may better advise and support students in their activities on and off campus.

Counseling and Psychological Services

The Center for Psychological Services (Counseling Center) provides confidential professional individual or group counseling to undergraduate and graduate students with educational, career and personal problems.

Students having educational difficulties such as not performing up to their potential may receive help in clarifying and resolving their concerns.

Students who are uncertain about their educational and career objectives can obtain help in appraising their abilities, interests, performances and personal characteristics so that they may identify more appropriate and satisfying directions.

Students with personal problems of any kind (emotional, social, marital) may receive assistance in better understanding and resolving their problems.

Services for Students

An occupational library containing information about a wide variety of majors and occupations is available without making an appointment.

Any full-time student who wishes to obtain an appointment about educational, career or personal concerns can do so by contacting the receptionist at McKee House, 44 University Terrace, between 8 a.m. and 5 p.m., Monday through Friday. Phone: 594-6081.

Financial Aids

The primary aim of the financial assistance program at Ohio University is to provide an opportunity for worthy students to enter and continue in higher education.

The financial aid program assists students in furthering their educations through scholarships, loans, grants and employment. In addition to these basic programs, there are a large number of special scholarships, awards and grants offered through various colleges, schools and departments with the University.

Application may be made for a University scholarship, National Defense Student Loan, Law Enforcement Grant, Nursing Student Loan, Ohio Instructional Grant and/or College Work-Study employment and, with the exception of the President's Honor Award, must be accompanied by the submission of a Parents' Confidential Financial Statement.

The total financial aid service also provides a job notice and referral system for both on- and off-campus employment through its Student Employment Office. Although it is not associated with federal financial assistance programs, regular community and on-campus employment for the self-initiating student is a primary source of student aid.

Financial aid applications for prospective freshmen are available after November 1 and no later than February 1, from the Office of Student Financial Aids upon written or personal request. Incoming freshmen must submit applications before February 15 of their senior year in high school.

Additional financial aid information can be found in the Student Financial Aids brochure or by writing Director, Office of Student Financial Aids, Ohio University, Chubb Hall, Athens, Ohio 45701.

Health Services

The University Health Service provides a complete outpatient medical clinic and a 90-bed hospital section in the Hudson Health Center. The medical staff includes full-time physicians, a large staff of registered nurses and registered laboratory and x-ray and other ancillary personnel. The Mental Health Clinic and Immunization and Physical Medicine Departments are staffed by appropriate professional personnel. Comprehensive dental care is available through a modern dental facility in the health center. Emergency medical services are available 24 hours a day.

The health program is designed to be a comprehensive program for the prevention and treatment of illness and accidental injuries.

Major surgery and certain special diagnostic procedures which cannot be performed at the center are provided by referral from a staff physician. Costs up to \$350 resulting from such referrals required because of illness or injuries occurring in the Athens area will be paid by the University Mutual Health Fund if not covered by a student's private insurance. Specialists in all fields of medicine are available when needed through health service referrals.

Housing Office

The main function of the University Housing Office is to assist students in acquiring housing on the Ohio University campus or in the Athens area.

The Housing Office is responsible for all residence hall and room assignments for students residing in University-owned residence halls and initiates all room and board charges.

The Director of Married Student Housing supervises the assignment and maintenance of the married student apartment complexes. This office also maintains vacancy listings of rental rooms, apartments, homes and trailers in the Athens community.

HOUSING REGULATIONS

All freshmen and sophomores must reside in University-owned housing and participate in the associated mandatory board plan, subject to the exemptions listed below. Status as a freshman and sophomore will be determined on the basis of quarter hour credits earned at the conclusion of the immediately preceding spring quarter for continuing students. Freshman status is defined as 0-44 hours of credit earned and sophomore status is defined as 45-89 hours of credit earned. A sophomore student who has fewer than 90 hours of credit at the conclusion of the spring quarter may petition, if he wishes, to delay the satisfaction of his housing status until the end of the summer quarter in order to earn additional hours and thus have a certified 90 hours at the conclusion of the summer quarter and, therefore, be exempted from the requirement of residing in a University residence hall for a third year. For transfer and reenrolling students the number of hours earned will be subject to certification by the director of admissions. For relocating students the number of hours earned will be subject to certification by the director of registration. Failure of a student, subject to this parietal rule, to comply with this condition of registration is cause for denial or cancellation of registration.

The exemptions are: (Must be requested in writing)

1. Freshman and sophomore students enrolled for fewer than eight quarter hour credits during the fall, winter or spring quarters and for fewer than three hours during summer session.
2. Married freshman and sophomore students residing with their spouses within commuting distance of the University.
3. Freshman and sophomore students residing with parents or guardians whose permanent residences are within commuting distance of the University.
4. Sophomore students living in recognized fraternity or sorority houses.
5. Exceptions for physical and/or psychological incapacity will be initiated only by the staff of the Hudson Health Center and/or the Center for Psychological Services and will occur only as a by-product of treatment of a student for a specific condition.
6. Freshman and sophomore student veterans of 18 months or more active military service.

NOTE: All students with 90 or more hours of credit earned are permitted to reside in housing which coincides with their individual

needs. It should be noted that the University bears no responsibility for the living conditions or problems arising therein to either the homeowner or the student resident.

Insurance, Major Medical

A major medical insurance plan, specifically designed to supplement the care provided by the University Health Service, is mandatory for students at an annual premium of \$16 unless a student submits evidence that he is covered by a comparable private insurance plan. A major medical-surgical expense protection insurance plan for the dependents of married students is available through the University comprehensive group medical insurance policy. Benefits of the policy are excellent and are available for a very low premium.

Intercollegiate Athletics

Ohio University is a charter member of the Mid-American Conference which is composed of eight prominent universities of the middle west. The other members are Miami, Toledo, Western Michigan, Kent, Bowling Green, Central Michigan and Eastern Michigan.

In the administration, financing, organization and management of the intercollegiate athletic program, the University adheres to the policies of the National Collegiate Athletic Association and the Mid-American Conference. All students are encouraged and welcomed to try out for any team of their choice. Ohio University teams go into competition thoroughly coached and trained. This training under excellent leadership makes it a privilege and an honor to participate on athletic teams at the University.

Medical attention for athletic squads is under the direction of a team physician. He has at his disposal the personnel and facilities of a modern university hospital and is aided by a qualified and experienced trainer.

University teams are organized in the following sports: football, basketball, baseball, track, wrestling, cross country, golf, soccer, tennis, swimming and ice hockey. Any student interested in the athletic grant-in-aid program or any student wishing to try out for a team should contact the head coach of the sport(s) directly.

For women, intercollegiate competition is scheduled in field hockey, basketball, softball, swimming, golf, tennis, volleyball, track and field and lacrosse. Women adhere to policies recommended by the Association for Intercollegiate Athletics for Women and by the Women's Physical Education Section of the Ohio College Association.

International Students

Admission. Information concerning the admission of students from foreign countries may be obtained from the Director of Admissions, Ohio University.

Services. The adviser to international students and his staff are available for consultation and assistance on a variety of matters of concern to foreign students.

Intramural Sports and Recreational Activities

The University offers an extensive program of intramural sports for men and women. Students are encouraged to make use of available facilities in their leisure time. This provides a way for students to participate in sports and recreation. Upon request, clubs will be organized in sports or physical recreation activities as facilities and personnel are available.

Motor Vehicles

University policy and regulations require that all motor vehicles operated by students in Athens, including student-owned automobiles, automobiles belonging to parents or relatives, motorcycles and scooters, must be registered with the University. This registration includes permanent town residents, married students, commuters and graduate students. The registration will be completed during registration week and will register the vehicle for the entire academic year.

Upon registration each student will be given a decal which must be attached as prescribed in the brochure issued with the decal.

If a car is brought to the campus after registration week it must be registered within 24 hours at the Office of the Director of Security.

Failure to register a motor vehicle will result in a fine and the student may be denied his driving privileges.

Freshmen and sophomores are not permitted by the University to bring automobiles to the Athens area.

Two-wheeled motor vehicles are not permitted on Ohio University property.

Ombudsman of the University

The ombudsman's primary duty is to assist students and other members of the University community in expediting settlement of complaints and grievances. While he has no direct authority, he does have power through his prestige, persuasiveness and persistence in stating his views to persons involved in a grievance and, if necessary, to their organizational superiors.

If you have a problem, try the usual channels first. The ombudsman supplements but does not supersede other means of redress. But, if all else fails, he will prove an invaluable aid. The Office of the Ombudsman of the University is located at 48 University Terrace, telephone 594-4721.

Placement and Internship Service

The Placement and Internship Service, located in Berry Hall on N. Court Street, is designed to assist all students and alumni who seek career or graduate school information. Those desiring permanent positions in education, business, industry, government or college teaching have opportunities for on-campus interviews with employers and may make use of a wide range of other career information and services.

The Internship Service is designed to help place undergraduates in career-oriented summer jobs with business, industry, government and social service agencies. Information is also available on other summer jobs with camps, resorts, sales organizations, etc.

Students planning to attend graduate school are encouraged to use the Graduate School and Career Plans Library which contains a wide array of graduate school catalogs and literature on scholarships, fellowships and loans.

Residence Life

The Residence Life Program is responsible for advising and coordinating 8,800 graduate and undergraduate students in 45 residence halls located on the East, South, College and West Greens. These residence halls are directed by staff members who participate in orientation programs as well as continual in-service training programs conducted by the Office of Residence Life, located in Chubb Hall, Room 050.

The administrative staff of most residence halls consists of a resident director and a graduate or undergraduate assistant. In addition there is a resident assistant for each group of approximately 50 students. These staff members are available for advice, assistance in the case of an emergency and general assistance with individual problems.

The resident director works with the students to develop a constructive program of self-government, recreation and cultural experience. Also, he or she participates in orientation programs and serves as an adviser to hall organizations and committees. The resident director is either a full-time staff member or a graduate student. As the representative of the director of residence life, the resident director interprets University and administrative procedures and policies to the students and makes the students' concerns known to the personnel staff.

The assistant is a graduate or undergraduate student who works closely with the resident director in assisting individual students and advising student groups within the hall.

The resident assistants are upperclass or graduate students who assist with the personnel and administrative function of the residence halls. As fellow students and hall residents, they are aware of the academic and social problems students encounter and endeavor to assist students in their adjustment to living in a residence hall.

Speech and Hearing Services

The Speech and Hearing Clinic offers diagnostic and remedial services without charge to University students. Clinical services are available to children and adults of the community and surrounding area for a nominal charge. All types of speech and/or hearing disorders in all age ranges are evaluated and receive therapy. The audio-logical division is equipped and staffed to provide complete hearing diagnostic services, to determine the need for and recommend special kinds of hearing aids and to provide therapy for all types of hearing loss.

A program for language and speech development operates in the on-campus clinic five days a week, and four regional county clinics see over 150 clients every Saturday. Undergraduate and graduate students prepare for clinical practice in public schools, special schools, private clinics, hospital and rehabilitation center clinics or university teaching and research. Persons wishing counseling about the training program, information about the service program or help with a speech or hearing problem should inquire at the clinic office in the basement of Ewing Hall between 8 a.m. and 5 p.m., Monday through Friday.



University Administration

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ROBERT L. SAVAGE, Ph.D., *Assistant to the President for Planning, Budgeting and Information Systems*

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UNIVERSITY COLLEGE Don M. Flournoy, Ph.D., *Dean*

COLLEGE OF ARTS AND SCIENCES John D. Jewett, Ph.D., *Dean*

COLLEGE OF BUSINESS ADMINISTRATION . John M. Peterson, Ph.D., *Dean*

COLLEGE OF COMMUNICATION John R. Wilhelm, B.A., *Dean*

COLLEGE OF EDUCATION *Dean*

COLLEGE OF ENGINEERING AND

TECHNOLOGY Richard S. Mayer, Ph.D., *Dean*

COLLEGE OF FINE ARTS Henry H. Lin, M.A., *Dean*

GRADUATE COLLEGE Norman S. Cohn, Ph.D., *Dean*

AFRO-AMERICAN AFFAIRS *Dean*

EXTENSION DIVISION Curtis M. Johnson, M.A., *Director*

HONORS COLLEGE Ellery Golos, A.M., *Director*

INTERNATIONAL STUDIES J. Norman Parmer, Ph.D., *Director*

REGIONAL CAMPUS ADMINISTRATION .. Ralph D. Smith, M.S.M.E., *Dean*

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Departmental Faculty

This listing of Ohio University's faculty is compiled as of April, 1972, official as of July, 1972. The faculty of the regional campuses have been integrated into the departmental lists for the Athens campus. The regional campus can be identified by the letter in parentheses following the name: (B)—Belmont County, (C)—Chillicothe, (L)—Lancaster, (P)—Portsmouth and (Z)—Zanesville.

Accounting and Quantitative Methods

Professors: W. Reininga, W. Voss (chairman)
Associate Professors: F. Davis, P. Dunlap, A. Kraft,
C. Stephenson
Assistant Professors: J. Cox, A. Hammood,
E. Holden, D. Stuchell
Instructors: W. Blind (L), S. Hu,
Lecturer: K. Poulton (B)

Administrative Sciences

Professors: H. Blythe, R. French, V. Grieco,
C. Hubbard (chairman), S. Prasad,
R. Raymond, S. Walton
Associate Professors: A. Mikhail, H. Patterson,
D. Richmond, J. Hand
Assistant Professors: H. Cox, P. Kensicki,
K. Nandola, D. Pugh
Lecturer: P. Anton
Instructor: T. Peters

Aerospace Studies

Professor: G. Nicholson (chairman, visiting)
Assistant Professors: C. Brown, M. King,
T. Sizemore

Architecture

Professors: E. Webber, F. Wilson (director)
Associate Professors: G. Fuller, J. McDermott
Assistant Professors: N. Crowe, R. Dybiec,
A. Farag, P. Gabriel, W. Hoyt,
L. Koe-Krompecher, C. Leach, T. Leaseau,
D. Reed
Instructors: F. Ching, J. Matthews
Part-time: S. Sheng

Art

Professors: J. Baldwin, D. Hostetler,
W. Kortlander, H. Lin (director), D. Loomis,
C. McCarthy, D. Roberts
Associate Professors: R. Borchard, A. Eldridge,
G. Kokis, R. Kroutel, G. Pettigrew
Assistant Professors: A. Gassan, A. Jonas,
D. Klahn, J. Lamson (B), L. Leach, E. Mayer,
K. Moore, M. Powell, P. Ramsey (L),
K. Vanderplas, D. Williams
Instructor: T. Stead (P)
Lecturer: W. Allen

Aviation

Associate Professor: F. Fuller (chairman)
Assistant Professor: J. Schwendeman
Instructor: L. Dale
Lecturer: J. Mace

Black Studies

Assistant Professor: L. Pettiford
Instructors: A. Love, O. Odimegwu, R. Sampson,
J. Steele
Part-time: A. Bankole, C. Barnett, L. Fambro,
M. Guilford, R. Rhodes

Botany

Professors: N. Cohn, C. Miller (chairman),
W. Wistendahl
Associate Professors: A. Blickle, J. Cavendar,
J. Graffius, M. Jaffe, L. Larson, I. Ungar,
A. Wallace (C)
Assistant Professors: J. Braselton, J. Cooley (P),
F. Drysdale, J. Knox, R. Lloyd,
K. Mansuetto (B), J. Mitchell, I. Smith,
R. Wisniewski (P)
Instructors: R. Althaus (Z), M. Primmer (L)

Chemistry

Distinguished Professor: W. Huntsman
Professors: A. Clearfield, J. Day, L. Eblin,
R. Ingham, J. Jewett, R. Kline (chairman),
W. Paudler, R. Sympson, J. Tong
Associate Professors: D. Hendricker, C. Houk,
H. Latz, C. Villemez, G. Westenbarger,
L. Wilson (L), R. Winkler
Assistant Professors: H. Bigony (C),
J. Bisbocci (B), R. Brumbaugh (Z),
T. Frazee (P), G. Pfeiffer, P. Sullivan,
T. Wagner

Classical Languages

Professor: P. Murphy
Assistant Professors: H. Hultgren (chairman),
A. Radko
Instructor: S. Foulk
Part-time: J. Russell

Comparative Arts

Professors: J. Conover, H. White (chairman),
R. Wortman
Associate Professor: B. Katz
Assistant Professors: R. Henenberg (C),
D. Miles (B)
Instructor: H. Miller

Dance

Professor: S. Wimmer (chairman)
Associate Professor: G. Bailin
Assistant Professors: M. Sakamoto, P. Welling

Design

Assistant Professors: K. Nulf, J. Winebrenner

Economics

Professors: C. Charle, H. Crewson,
B. DeVeau (chairman), L. Gallaway,
D. Levinson, M. Lovenstein, S. Pejovich,
J. Peterson, F. Picard, L. Soltow
Associate Professors: D. Adie, G. Frazee (B),
D. Klingaman, R. Koshal, L. Potemra,
R. Vedder
Assistant Professors: R. Cebula, P. Deuster,
I. Ghazalah, J. Haughey (L), R. Lewis,
V. Shukla
Instructors: L. Ault (L), J. Hoefler (Z)
Part-time: B. Daniel

Educational Administration

Professor: L. Krantz
Associate Professors: M. Evans (chairman),
D. Knox, O. Roaden, J. Rodgers
Assistant Professor: J. Bryant (L)
Part-time: S. Kokovich

Education—Elementary

Professors: W. Cooper, M. Felsing,
H. Hubler (P), L. Mills, M. Ploghoft,
A. Shuster (chairman)
Associate Professors: J. Brunk, W. Dailey (Z),
C. D'Augustine, A. Leep, P. Ploutz, K. Weimer
Assistant Professors: A. Ginther (C),
T. Helms (B), B. Morgan, S. Navin, H. Olsen,
R. Pinney, C. Smith
Instructors: J. Meyers (P), W. Bartels (B)

Education—

Guidance, Counseling and Student Personnel

Distinguished Professor: G. Hill
Professors: L. Ostlund, C. Peterson
Associate Professors: J. Grubb, L. Haseley,
L. LeClair (L), L.P. Rand, J. Witmer
Assistant Professors: E. Bovenizer (B),
J. Hartman, C. Laubenthal (Z), W. Osher,
L.A. Rand, R. Thomas
Instructor: B. Gaskins (Z)

Education—Secondary

Professors: R. Boyd, J. Evans, E. Lynn, S. Samaan,
G. Stephenson
Associate Professors: P. Cosiano, A. Johnson,
D. Leighty, R. Mitias, R. Skinner,
J. Thompson (chairman), R. Wagoner
Assistant Professors: A. Clubok, E. Stevens
Instructor: H. DeLamatre (L)

Education—Special

Associate Professors: L. Lehman,
D. Peterson (chairman)
Assistant Professors: A. Allen, E. Burns,
L. Jageman

Education—

Professional Laboratory Experiences

Professor: J. Evans (chairman)
Associate Professors: P. Cosiano, A. Hoy,
H. Lackey
Assistant Professors: A. Eisen, A. Ginther (C),
F. Manring, B. Thompson
Instructors: W. Bartels (B), H. DeLamatre (L),
J. Meyers (P), R. Penn
Part-time: L. Campbell, H. Duduit, H. Humphrey

Engineering, Chemical

Professors: W. Baasel, C. Baloun, (chairman)
J. Collier, N. Dinos, H. Kendall, R. Mayer,
R. Savage
Assistant Professors: M. Dudukovic, L. Holtzmeier

Engineering, Civil

Professors: I. Badger, R. Olson,
C. Shermer (chairman)
Associate Professors: G. Hazen, H. Kaneshige,
E. Russ, J. Wang
Assistant Professor: J. Thomas

Engineering, Electrical

Professors: W. Chen, J. Gilfert (chairman),
H. Hoffee, H. Klock, R. McFarland,
R. Quisenberry, G. Raju, R. Redlich, G. Smith
Associate Professors: H. Chen, R. Jurgens,
R. Selleck
Assistant Professors: H. Deck, J. Essman,
P. Garrett, R. Hayes
Instructor: M. Stefanik
Part-time: J. Battistelli, R. Burhans, L. Drake,
W. Hartmann

Engineering Graphics

Professor: R. Wickham
Associate Professors: A. Barnhill (Z)
M. DiLiberto (chairman), T. Sarchet
Instructors: B. Grow, J. Pierce (C), K. Sharples
Lecturer: J. Martin

Engineering, Industrial and Systems

Professors: J. Fink, E. Gamble, R. Smith,
R. Williams (chairman)
Associate Professors: C. Overby, D. Scheck
Assistant Professors: R. Stemmler, H. Zwahlen

Engineering, Mechanical

Professors: O. Adams (chairman), L. Hicks
Associate Professors: W. Beale, F. Chen,
R. Lawrence
Instructor: J. Drummond (L)

English

Distinguished Professors: R. King, E. Stone,
H. Summers
Professors: T. Culbert, F. Fieler (chairman),
J. Jones, D. Keyes, L. Marks, J. Matthews,
N. Rogers, J. Schmidt, H. Swardson, W. Tevis,
C. Thayer, A. Wells, E. Whan
Associate Professors: L. Antalis (B), L. Brown,
C. Colvin (B), J. Davis, A. DeJovine, W. Dodd,
R. Fitch, R. Flannagan, D. Heaton,
P. Heidtmann, J. Hollow, E. Johansson,
E. Knies, W. Kuhre, E. MacKenzie, E. Mitchell,
J. Neault (C), B. Park, E. Quattrocki,
V. Ramsey, R. Roe, D. Schneider, R. Schulte,
J. Thompson, G. Udell
Assistant Professors: D. Althaus (Z), L. Bartlett,
B. Bassoff, H. Coleman, F. Cronin, S. Crowl,
R. DeMott, J. Desmond, J. Fleischauer,
K. Haas (L), C. Harter, B. Hodgden (P),
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D. Townsend, A. Woolley
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M. Keslar (Z), P. Kousaleos, M. Rollins,
G. Ware (Z), S. Williams, P. Yuckman (L)
Lecturer: S. Thompson (B)

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W. Russell (P)

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M. Molineu, D. Williams
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M. Gentry, R. Hunt, J. Jordan (Z), S. Kim,
G. Mackin (C), R. Schaefer, J. Tilling,
R. Weisfelder

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F. Schleicher, L. Simon, H. Weinbrecht (P),
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J. Gilmore, W. Hess, H. Houska, J. Kappes,
G. Klein, J. McComb, J. Snyder, C. Vosler,
R. Wren

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J. Fokes, D. Fucci, F. Weiner
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C. Weiner
Part-time: R. Harris, C. Kantner, C. Robertson,
K. Singh, D. Weiner

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S. Weaver (B)
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J. Matthews, S. Slater, A. Wade
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H. Shull, A. Squibb
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A. Saunders
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R. Wagner, R. Whitman
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R. Murray, B. Scott
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M. Stright

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G. Linnenbruegge (chairman), J. Wright

Library Technology

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H. Silver
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P. Gagliano, L. Jennings, C. Kasl, D. Skentzos

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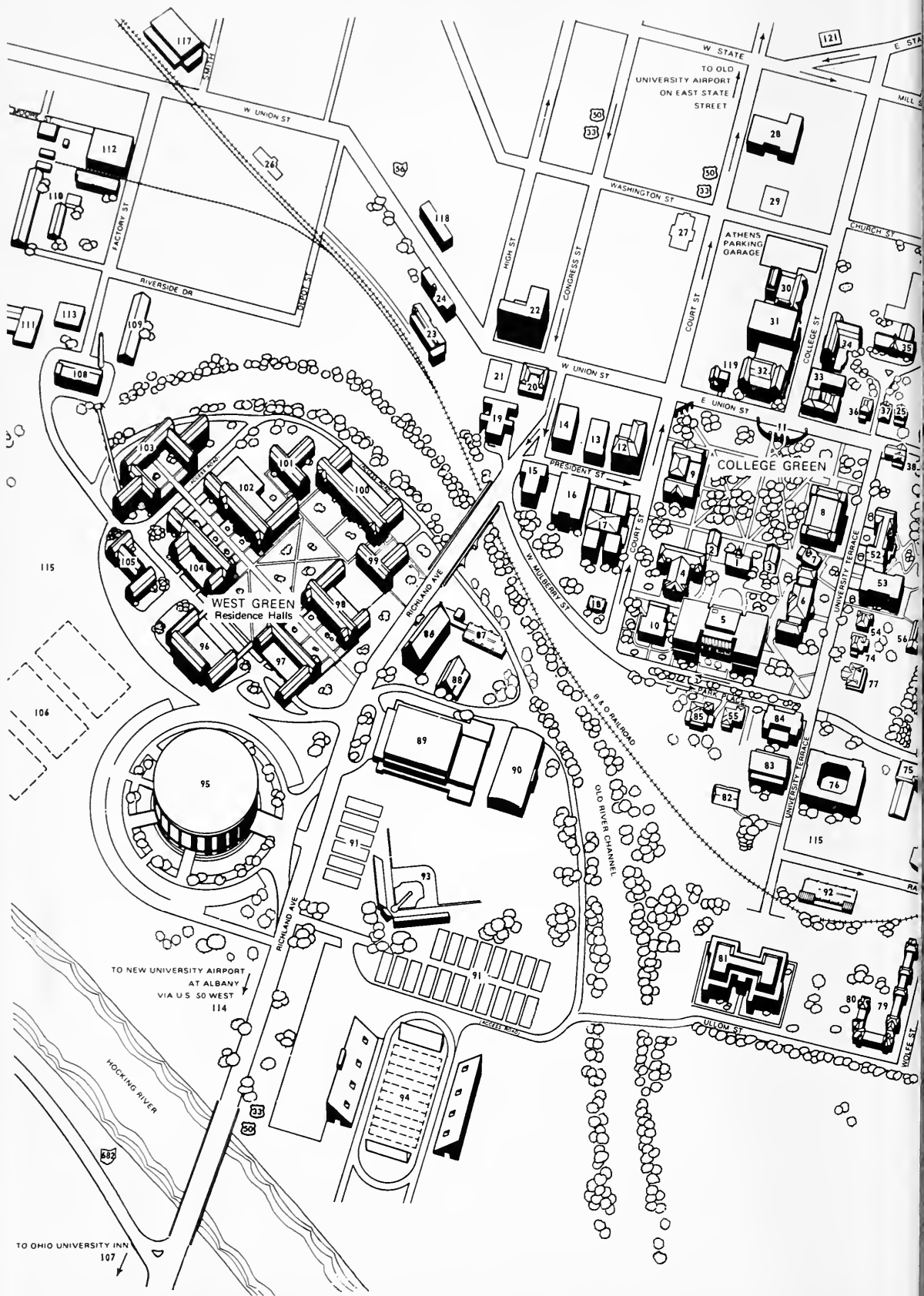
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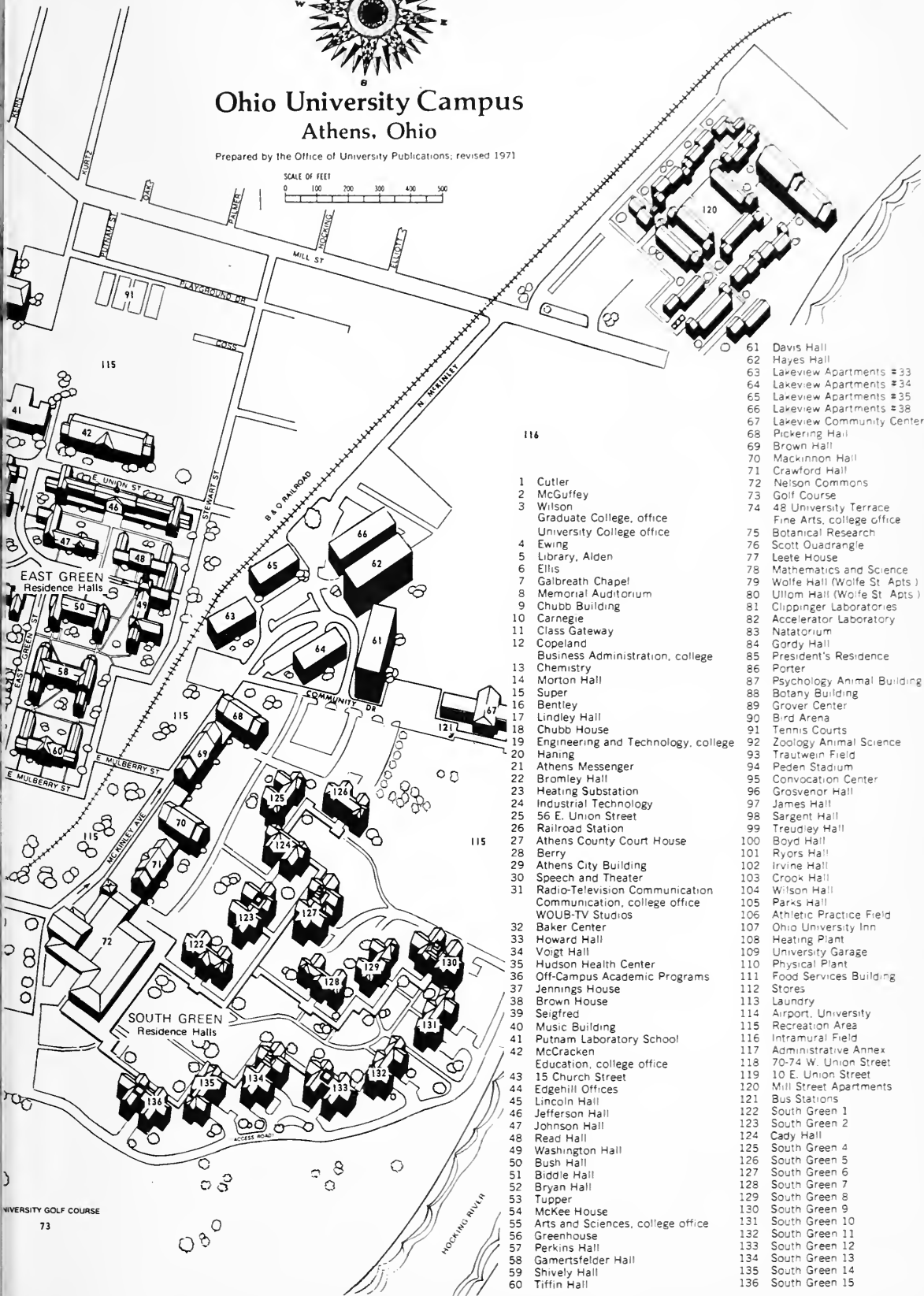
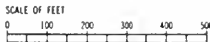
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Ohio University Campus Athens, Ohio

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